

THE JOURNAL  
OF THE  
ANTHROPOLOGICAL INSTITUTE  
OF  
GREAT BRITAIN AND IRELAND.

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APRIL 29TH, 1879.

E. BURNET TYLOR, Esq., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The Election of the following new Members was announced.  
EDMUND KNOWLES BINNS, Esq., and W. S. DUNCAN, Esq.

The following presents were reported, and thanks were ordered to be returned to the respective donors:—

FOR THE LIBRARY.

From the SOCIETY.—Transactions of the Asiatic Society of Japan.  
Vol. VII, Part 1.

From the AUTHOR.—“De la Suture medio-frontale.” By M. Gustave Calmettes.

From the BERLIN ANTHROPOLOGICAL SOCIETY.—Zeitschrift für Ethnologie. No. 5, 1878.

From the EDITOR.—The Science Index. Vol. I, No. 1.

From the EDITOR.—Revue Internationale des Sciences, No. 4, 1879.

From the ACADEMY.—Atti della R. Acad. dei Lincei. Vol. III, No. 4.

From the ASSOCIATION.—Transactions of the Social Science Association, 1878.

From the EDITOR.—Index Medicus. Vol. I, No. 3.

From the SOCIETY.—Proceedings of the Society of Antiquaries.  
Vol. VII, No. 5.

From the EDITOR.—Matériaux pour l'histoire de l'Homme. Vol. X, No. 1.

From the EDITOR.—Revue Scientifique, Nos. 39 to 43, 1879.

VOL. IX.

I

The following papers were read:—"Notes on Analogies of Manners between the Indo-Chinese Races and the Races of the Indian Archipelago." By Col. HENRY YULE, C.B. "On Relationships and the Names used for them among the Peoples of Madagascar, chiefly the Hovas; together with Observations upon Marriage Customs and Morals among the Malagasy." By the Rev. JAMES SIBREE, Junior.\*

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*On the OSTEOLOGY and AFFINITIES of the NATIVES of the ANDAMAN ISLANDS.* By WILLIAM HENRY FLOWER, LL.D., F.R.S., P.Z.S., V.P. Anthropol. Inst.,† &c.

THERE are few people whose physical characters offer a more interesting subject for investigation to the anthropologist than the native inhabitants of the Andaman Islands.

Purity of type, due to freedom from mixture with all other races for an extremely long period owing to their isolated position and their inveterate hostility to all intruders on their shores, and exemplified in their uniformity of physical characteristics, is to be found among them, perhaps in a more complete degree than in any other group of mankind. The type, moreover is an extremely peculiar one, presenting a combination of characters not found in any race of which we have at present materials for a satisfactory comparison. It is indeed probable that the more or less mixed and now scattered fragments of Negrito populations found in the interior of various islands of the Indo-Malayan Archipelago, and even upon some parts of the mainland of Asia, may have been derived from the same stock, but the special interest of the Andamanese consists in the fact that they alone of these diminutive black, woolly-haired people occupy the whole of the small islands on which their ancestors have dwelt from time immemorial, or rather did so occupy them until the coming upon them of the English in 1857.

That a certain admixture from other races occasioned by intentional visits, or accidental wrecking of vessels on their coasts, and absorption of some portion of foreign element thus derived into the native population may have taken place from time to time, cannot be denied, but it is questionable whether this has been sufficient to affect materially the physical characters of the majority. Although most recent and carefully made observations, especially when supported by osteological and

\* *Vide* pp. 35-50 in the present volume.

† Read June 24th, 1879.



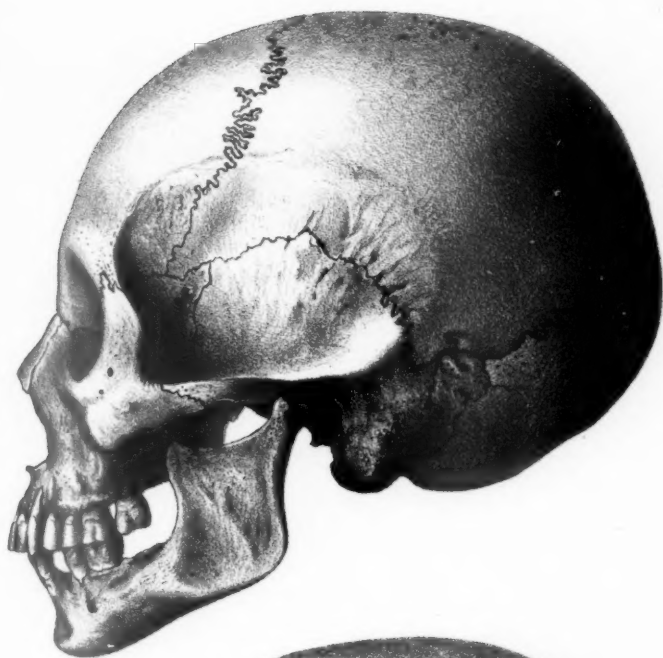


Fig. 1.

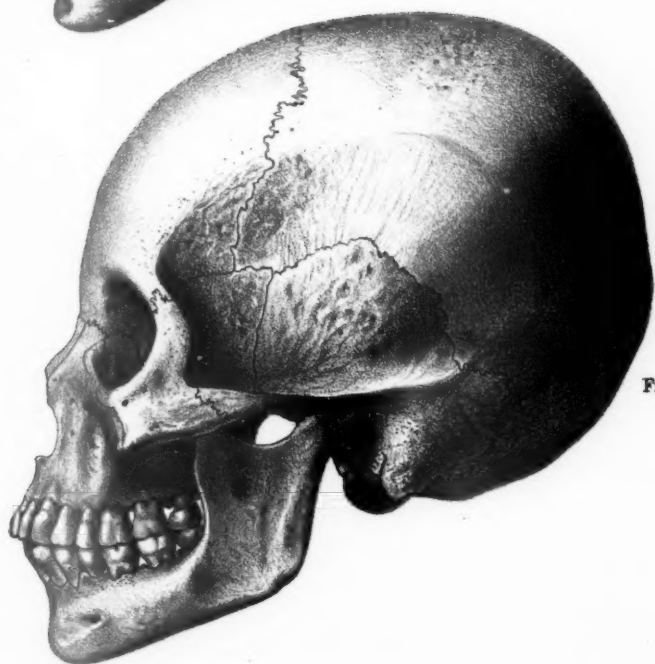


Fig. 2.

J. Smit lith.

Hanhart imp.

ANDAMANESE CRANIA.



Fig 1.

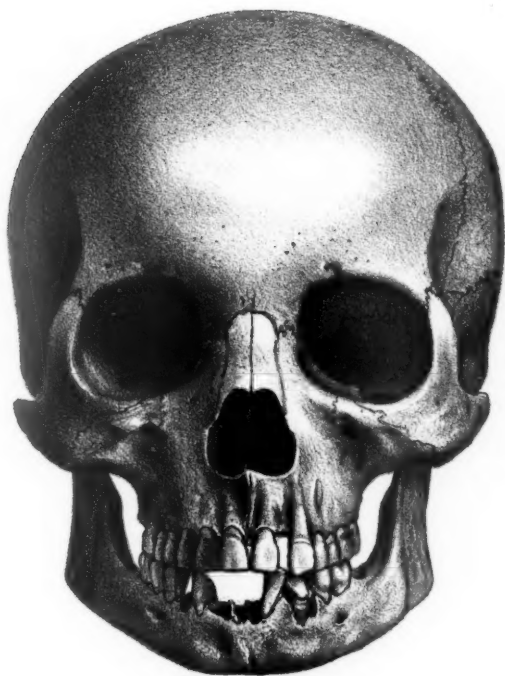


Fig 2.



J. Smit lith.

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ANDAMANESE CRANIA.



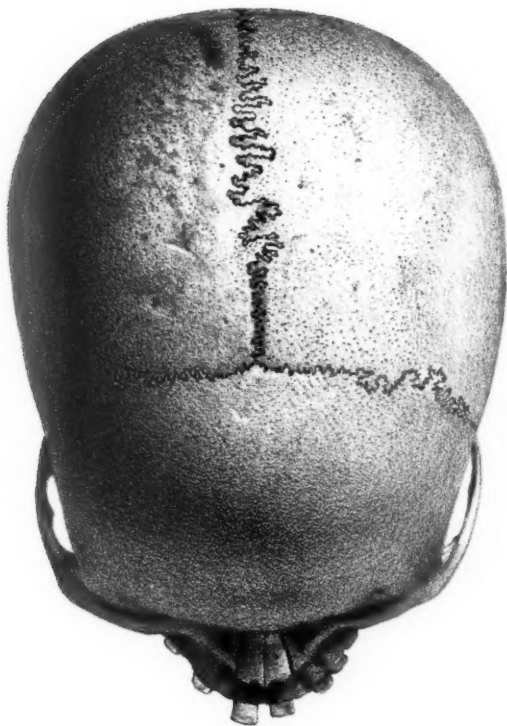


Fig 1.

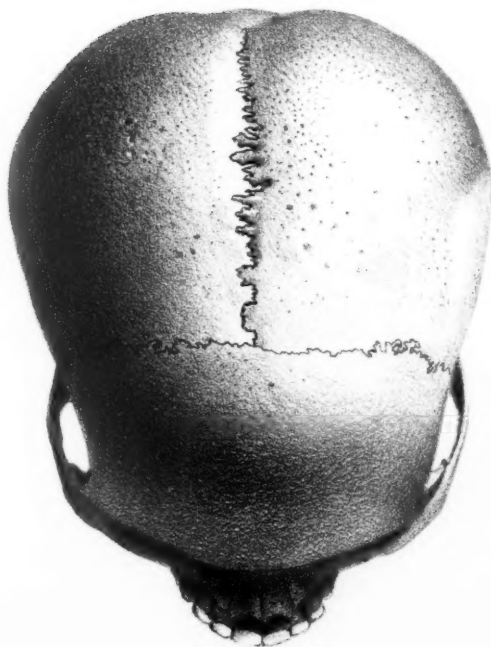


Fig 2.





Fig. 1.

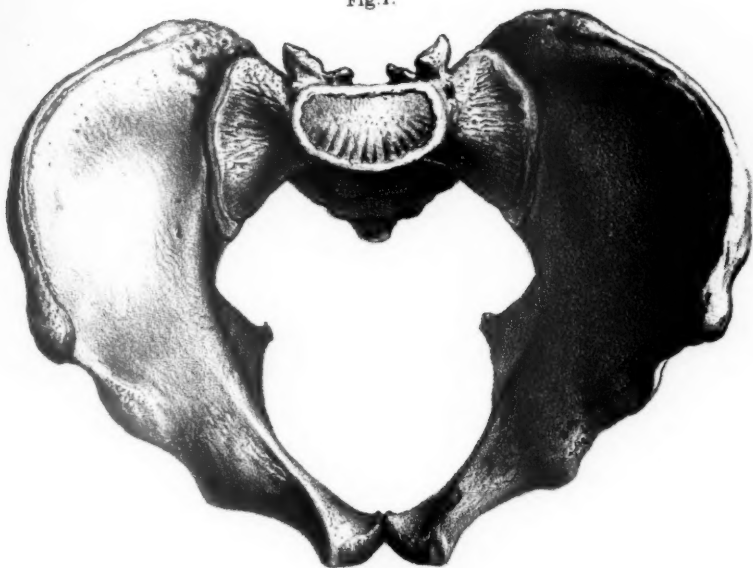
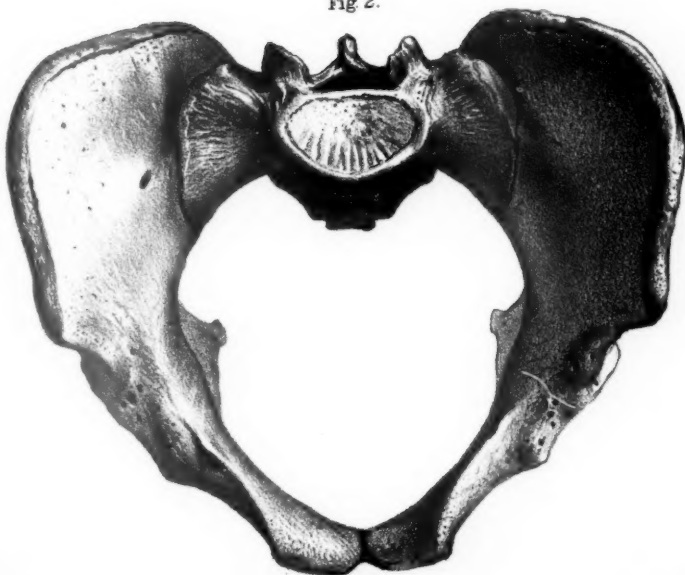


Fig 2.



J. Smart lith.

Hanhart imp.

ANDAMANESE PELVES.



photographic evidence, tends to confirm the view that a striking uniformity of type is prevalent among the Andamanese, we cannot ignore the statements of many travellers, and even residents in the islands to the contrary effect, among which I may cite those of St. John,\* F. Day,† and General H. Man.‡

I have no means at my disposal for solving this difficulty, but would earnestly recommend it to the attention of residents in the islands, the more especially as no time must be lost in prosecuting such inquiries. The presence of as many as 7000 Indian convicts, with the necessary attendant foreign population, must in a very short time work a complete moral and physical change among the natives of the islands, if it does not, as is most probable, lead to their utter extinction.

The fact should not be forgotten that the material evidence upon which the view of the uniformity of the Andamanese is based has been derived mainly from natives of the vicinity of the English Settlement at Port Blair, and that it is possible that when more extended collections and observations are made, the statements just referred to may receive corroboration or explanation.

A large number of works, memoirs, and notices have been devoted to the Andaman Islanders, chiefly relating, however, to their general history and social customs. Reference to most of these will be found in the excellent and, for the date at which it was written, exhaustive memoir entitled "*Etude sur les Mincopies*,"§ by M. de Quatrefages, published in the "*Revue d'Anthropologie*," tome i, 1872. Of those published since, none have given any information regarding the osteological characters, which are the special subjects of the present communication. I may, however, refer to two very interesting papers which have seen the light through the medium of our Institute, and which will be found in the pages of our Journal, viz.: "On the Andamans and Andamanese," by G. E. Dobson, "*Journal Anthropological Institute*," vol. iv, p. 457, and "On Mr. Man's Collection of Andamanese and Nicobarese Objects," by Major-General A. Lane Fox, "*Journal Anthropological Institute*," vol. vii., p. 434. ¶ Our present knowledge of the osteology of the Andamanese is derived from the somewhat brief description of a skeleton by Professor Owen||, from an account of another skeleton and

\* "*Trans. Ethnol. Soc.*," vol. v, p. 45.

† "*Proc. Asiatic Soc. of Bengal*," 1870, p. 155.

‡ Supplement to Dr. Barnard Davis's "*Thesaurus Craniorum*," p. 69.

§ "*Mincopie*," a name first applied to the Andamanese by Lieut. Colebrooke, is often used in European literature, but does not seem to be known to the islanders themselves.

|| "*Brit. Assoc. Reports*," 1861, also (without figure), "*Trans. Ethnol. Soc.*," vol. ii (*n.s.*), 1867, p. 34.

notices of several crania by Dr. Barnard Davis,\* a description of two crania by Mr. Busk,† and of two by M. de Quatrefages.‡

The materials upon which the observations which follow are based, are far more abundant than any which have hitherto been brought together, and are, I trust, sufficient to draw with safety some general conclusions as to the physical characteristics of the race. Perhaps when still larger numbers of skeletons are examined, some of the statements and average measurements and indices will have to be modified, but probably not in any essential degree.

These materials consist of nineteen more or less complete skeletons of adults, of which nine belong to the male, and ten to the female sex.‖ Thirteen of these are in the collection of the Royal College of Surgeons, ten having been presented by Surgeon-Major Joseph Dougall, M.D., whose recent death from typhoid fever, while in discharge of his duty as Senior Medical Officer at the Andaman Islands, science has much reason to deplore. One was received in exchange from the India Museum at Calcutta through the courtesy of Dr. J. Anderson, and two were presented by General Man, at the request of my friend Mr. J. R. Mummery. Of the other six skeletons, two are in the British Museum, one being that which was brought to this country in 1861 by Dr. J. Mouatt, and described by Professor Owen; the other was presented in 1865 by Dr. J. Ingle. Two others in the collection of the University of Oxford have been most liberally placed at my disposal by Professor Rolleston, and for two more I am indebted to the kindness of Dr. Allen Thomson.

The crania that have been personally examined have amounted to nearly thirty, but of some, circumstances have only allowed of a few notes being taken; others are too young to be included in the averages; but of twenty-four I have been able to obtain complete measurements. These include fourteen belonging to the Museum of the Royal College of Surgeons, two belonging to the Middlesex Hospital Museum (formerly described by Mr. Busk), three in the British Museum, two in the Oxford Museum, two belonging to Dr. Allen Thomson, one lent by Mr. Valentine Ball, and one in the Museum of University College, London, for the loan of which I am indebted to Professor Ray Lankester.

#### *Stature.*

Although, with one exception, the skeletons are not articulated, they afford some evidence as to the size and amount of variation

\* Supplement to "Thesaurus Craniorum," 1875.

† "Trans. Ethnol. Soc.," vol. iv (1866), p. 205.

‡ 'Etude sur les Mincopies.' "Revue d'Anthrop.," tome i, 1872.

in height of the two sexes of the Andamanese. These people have always been regarded as among the smallest of human races. St. John gives their average height as 5 feet. Dr. Charles Smith, from 4 feet 10 inches to 5 feet for the males, and under 4 feet 10 inches for the females. Dobson saw none over 5 feet 4 inches, and was especially struck by the remarkable contrast between the size of the males and females. With our own race it is usual to estimate the height as bearing the proportion to the length of the femur, as 1000 to 275. This of course is only an average, subject to very considerable individual variations. Wishing to ascertain whether the same rule might be applied to the Andamanese, I first calculated on this basis the probable height of the skeleton (a female), which is mounted in the Museum of the College of Surgeons. Taking the mean length of the two femurs at 368·5 millimetres (the right being 367 and the left 370); the height, on this calculation, ought to be 1340, which is only 20 millimetres more than the skeleton actually measures (*i.e.* 1320 = exactly 52 inches), or as nearly as possible what the real height of the person would be when living. Such being the case, it may be assumed that we shall not be greatly in error in applying the same rule to the other skeletons. Taking the males first, the average length of the femurs is 398·7 millimetres, the maximum 442, the minimum 378, which gives for the stature an average of 1448, or exactly 4 feet 9 inches, a maximum of 1600 or 5 feet 3 inches, and a minimum of 1385 or 4 feet 6·5 inches. The tallest man is the one first brought to this country by Dr. Mouatt, and it should be remarked that he very considerably exceeds any of the others; the next largest femur being only 410 millimetres.

The average length of the femur of the females is 378·2 millimetres, the maximum 410, the minimum 358, which would give an average height of 1375 or 4 feet 6·1 inches, a maximum of 1481 or 4 feet 10·3 inches, and a minimum of 1302 or 4 feet 3·2 inches. Only one female, that belonging to the Oxford Museum, exceeds the average of the men, and only one of the men is as low as the average of the women.

I do not think that these measurements are sufficiently numerous, or the calculations on which the results are based sufficiently reliable, to give a true average of the height of the sexes, but they probably give fair approximations and are interesting as corroborating the view generally entertained of the diminutive proportions of the race.

Though small, there is nothing about the bones which indicates degeneration or debility. They are well-proportioned, fairly stout for their length, and the processes and surfaces for

the attachments of muscles well marked, in some cases very strongly so.

*Cranium.*

When a large series of crania of Andamanese are placed together, their wonderful similarity cannot fail to strike the observer. In no other race with which I am acquainted could be found in such a series—which, it must be remembered, was not selected for any particular object, but consists of all available specimens, collected from various sources—so little diversity either in size or general conformation.

Not, however, but what they do all present individual differences, which appear more marked the more attentively they are studied. After having had twenty-four skulls in my room for a few days, repeatedly examining, handling and measuring them, the special characters of each became so distinctly revealed, that I could in a moment recognise each one from the other; as no doubt would be the case with the living individuals of the race, whose general similarity at first sight has struck so many travellers.

The next, and a very remarkable point connected with them is, that they present a peculiar combination of characters, which distinguish them from the crania of all other people, at least all which I have had an opportunity of examining. It may seem rather a strong assertion to make, and perhaps further experience may cause me to modify it, but my present impression is that I could never fail to recognise the skull of a genuine Andamanese as being such, and that I have never seen a skull from any other part of the world that I should assign to a native of these islands. It is possible, indeed most probable, that other Negritos may have skulls exactly resembling those of the Andamanese, but none of them have as yet come under my observation. The skull of a Negrito or Até, from Panay in the Philippines, figured by Dr. Barnard Davis (*"Thesaurus"* p. 301, fig 84), appears very like one, though I cannot say that this is the case with that from Luçon, in Quatrefages and Hamy's *"Crania Ethnica,"* Plates XIII, XIV, and XV.

Crania which have not arrived at full maturity have been excluded from the series of twenty-four from which the measurements are taken, though they have been used for certain other observations, in which complete development is not an essential. I have, however, although with some misgivings, as contrary to the practice usually followed, included one, in which the basilar suture is not firmly closed—the female skull belonging to the Middlesex Hospital—which appears in all other respects



to have so nearly attained its full development that it seemed scarcely necessary to diminish the number of averages by rejecting it, especially as it is one of those previously described by Mr. Busk.

Of the twenty-four skulls, I assign twelve to males and twelve to females. In most cases there is evidence from other sources, either the presence of the entire skeleton, or the history of the individuals, to attest the sex. In the few cases in which there was no such evidence there has been little difficulty in assigning them to one or the other category. The possession of so many specimens in which the sex is absolutely known, makes it far easier than it otherwise would be to determine the differential sexual characters of the race, especially as these are by no means great.

In regard to size, the general averages give the preponderance, as might be expected, to the males, though there are individual cases in which females are larger than those of the opposite sex. The female heads are nearly all proportionately broader in the parietal region, and in fact they present what may be considered the most typical form of the race in a more marked manner than those of the males. There is but little difference in the bones of the face, supraorbital ridges and glabella, but the mastoid processes are invariably more developed in the males than in the females; and this constitutes the surest character by which to distinguish the sexes. The other differences will appear in the course of the description.

It should be mentioned that none of the skulls present any signs of artificial or of pathological deformation, unless the rather considerable length of the male, belonging to the Middlesex Hospital, be, as conjectured by Mr. Busk, occasioned by early synostosis of the parietal suture.

In general size the skulls may be considered as belonging to the smallest, or nearly the smallest, of any race. The cranial capacity of the males\* ranges between 1150 and 1360 cubic centimetres; the general average being 1244; that of the females between 1025 and 1250; the average being 1128.† This difference between the average of the two sexes is expressed by the proportion of 1000 to 907.

This is probably very much the same relative proportion as that which exists between the cranial cavity of the two sexes of the English people; at all events it very closely accords with what is known of their brain weight from the extensive series of observations of Sims, Clendenning, and Reid, quoted by Dr. A.

\* Eleven only could be measured. That presented by Dr. Mouatt to the British Museum being in a too mutilated condition.

† Average of twelve.

Thomson in "Quain's Anatomy," those of Dr. R. Boyd,\* and those of Dr. Crochley Clapham,† which give respectively the ratios of 89, 90, and 91 to 100; so that 90 may safely be taken as a general average. In the Australians, in the Museum of the College of Surgeons, the proportion is as 89 to 100; in a considerable series of skulls of Italian peasants 87 to 100, in modern Parisians, according to Dr. Gustave Le Bon,‡ the capacity of the female skull differs from that of the male by as much as 857 to 1000.

The average horizontal circumference in the males is 480 millimetres, in the females 462, and the average vertical transverse circumference in the males 410, and in the females 395. For the individual numbers, I must refer to the tables of measurement.

The latitudinal index or relation of the greatest transverse (parietal) breadth to the length (ophryo-occipital) averages, taking both sexes together, 816; they are therefore, as a race, truly brachycephalic. As usual there are individual differences, the lowest index being 767; this is the skull with the closed sagittal suture, belonging to the Middlesex Hospital, described by Mr. Busk. As already mentioned, it has been suggested that this presents an aberrant form, but if so, it is only to a very slight degree, as two other crania, which have the sagittal suture open, and otherwise are perfectly normal, have indices almost as low, viz.: 775 and 778 (*see* Table I). The highest index is 868. Generally speaking, the males have narrower heads than the females, the average index of the former being 805, that of the latter 827; and of the seven skulls of the twenty-four, the index of which falls below 800, six belong to the male sex.

The average altitudinal index (ratio of the basi-bregmatic height to ophryo-occipital length) in both sexes is 775, being 770 in the males and 779 in the females. In only one (Mr. Ball's) out of the twenty-four skulls does the height exceed the breadth, and this only by 2 millimetres, whereas in the frizzly-haired Papuans and Melanesians, with whom the Andamanese have often been associated, the height almost invariably exceeds the breadth.

The general form of the cranium in its most characteristic development as seen in the *norma verticalis* (Plate IV, Fig. 2) is a broad, but by no means regular oval, narrow in front, the sides nearly straight, and rapidly diverging to the parietal eminences, which are situated very near the posterior part of the cra-

\* "Phil. Trans.," 1861.

† West Riding Asylum Medical Reports, 1873 and 1876.

‡ "Revue d'Anthropologie," Jan. 1879.

nium. The great prominence of the parietal eminences, to which the high latitudinal index is mainly due, is more marked in the female than the male skulls; the latter being usually more regularly oval. The specimens figured (Plate IV, figs. 1 and 2), present two rather extreme forms. The straightness of the outline between the external orbital processes of the frontals and the parietal eminences is due to considerable flattening of the temporal fossæ.

The frontal region is round, smooth, and in horizontal profile, slopes at a very even curve from the nasion to the bregma. The frontal eminences are very little developed. The main characteristic of this region is the complete absence of glabella, and of superciliary ridges. In the older males only is there any indication of these prominences. In the females, as is usually the case, the anterior part of the frontal bone rises more vertically, and turns more abruptly to the horizontal upper surface. The bregma is so situated that when the cranium is placed with the axis of vision horizontal, the auriculo-bregmatic line has always an inclination forwards at the upper end. In Europeans, this line is generally vertical or may fall backwards. The general contour of skull, as seen from the side (*see* Plate II), is as characteristic as is its horizontal outline. Rising gradually and evenly from the face to the bregma, it then continues nearly horizontal to the middle of the sagittal suture, and then falls very abruptly to the lambda, and below this spot curves in rapidly towards the foramen magnum. Although the occipital region is thus greatly curtailed, its contours are finely rounded, and never present any of that absolute flattening or truncation which would indicate interference with its form by artificial pressure. The small development of the cerebellar fossæ and of the lower part of the occipital region generally is one of the most characteristic features of the cranium. This is indicated in the size of the basilar angle,\* which averages as much as  $28^{\circ}$ . In many of the specimens there is a slight transverse depression behind the bregma, distinctly affecting the upper contour of the skull, but this is absent in about half the number. Much more constant is a longitudinal median depression around the posterior half of the sagittal suture, especially at the region of the obelion. In many cases, especially among the females, in which the parietal bosses are large, this is very marked, and gives a heart-shape to the upper surface of the skull when seen in certain positions. More or less flattening of this region is found in almost all.

Seen from behind, the skulls have all a pentagonal form, and

\* The angle NBY, Broca, "Instructions Craniologiques" (1875), p. 92.

the greatest breadth of the parietal eminences is situated at the junction of the upper and middle third of the height. The degree at which the sides slope out from the base to the parietal eminences, and the difference to which this takes place in the two sexes can be estimated by comparing the average biauricular breadth taken on the squamosal immediately above the ridge running backwards from the zygoma over the meatus auditorius externus, which is 113·7 in the males, and 108·9 in the females, with the maximum parietal, which is 134·9 in the males, and 132·8 in the females, or as 100 to 118·7 in the males, and 100 to 121·9 in the females.

The general surface of the cranium is smooth, and the muscular ridges are little pronounced. The limits of the attachment of the temporal muscles are only feebly indicated, and the occipital curved lines and the inion are in most cases scarcely discernible. Of course there is some difference between the sexes in this respect, but in only one of the males does the inion make any prominence distinctly visible in the side view of the skull. The mastoid process is generally fairly developed, conical and pointed in both sexes, but always larger in the males than in the females. In four of the twelve males do they extend below the level of the condyles, and in one of the twelve females.

In the character of the sutures there is considerable variation, but as a general rule they are between the extremes of great complexity and of simplicity, though the latter condition may be said to preponderate. There are no very marked examples of either extreme in the series. Wormian bones are present in the lambdoidal suture in thirteen out of twenty-three crania examined. There are no cases of epactal or inter-parietal bones. With regard to metopism, or persistence of the frontal suture, one only out of twenty-nine examined by me presents this condition, it is a young female belonging to Mr. Ball. But it is curious, and nothing could better illustrate the necessity of founding such observations upon considerable series, that among six other examples of Andamanese skulls described, viz., two at Paris, and four in the possession of Dr. Barnard Davis, as many as three are recorded as metopic. This will give a total of four in thirty-five known examples of skulls of the race.

Out of forty-six cases (including both sides) in which the condition of the sutures of the region called by Broca "pterion" could be examined, the squamosal articulated with, or at least reached, the frontal in six, in two of them joining it for a space of fully 12 millimetres, though in both instances (one female in the British Museum, and one male at the Netley Hospital) this occurred on one side of the head only. In eight cases the sphen-

parietal suture was less than 5 millimetres in length; in eight cases there are epipteric bones or accessory ossicles at the upper part of the sphenoid, and the remaining twenty-four are in what may be called the normal condition, though the suture is in every case very short.

Consolidation, complete or partial, of the cranial sutures, has taken place in seven out of twenty-nine crania. In three it is complete, yet in none of them are any of the teeth lost, or even presenting more than a moderate degree of wear. In the four examples of partial consolidation, the coronal has united at an earlier period than the lambdoidal; in fact, the former is completely consolidated in all four, while the latter is either entirely free or only partially consolidated. This corresponds with Gratiolet's view, that in the savage races the anterior, and in the elevated races the posterior cranial sutures are first to consolidate. My impression, judging from the condition of the teeth and general aspect of the skull, is that sutural union takes place in the skull at an earlier period than in ourselves, but at present this can scarcely be considered as demonstrated.

With regard to the projection of the zygomatic arches, of eighteen skulls especially examined with this view by the method adopted by Mr. Busk, all except two are phænozygous; in these two the zygomata are but just covered; in several of the others only the edges appear on each side; in none is there much projection.

The skeleton of the face of the Andamanese is even more characteristic and uniform in appearance than that of the cranium. The profile is remarkable for its straightness, caused by the absence of glabella, or of any sinking in at the root of the nose, and by the small size and flatness of the nasal bones. A straight line drawn from the centre of the forehead to the alveolar point, sloping moderately forward below, corresponds very nearly with the main points of the outline of the face. The malar bones are well-developed and prominent. The outer margin of the orbit stands somewhat more forward than it does in Europeans, though far less than in the Mongolian races, the average nasi-malar angle\* being  $135^{\circ}$ , and when the cranium is horizontal, the lower margin is in advance of the upper. The orbits are always more or less round, with fine, sharply-defined borders. The general average orbital index of the whole series is 910, so that they come into Broca's *megaseme* division. The

\* The angle formed between two horizontal lines, meeting at the most depressed point of the nasal bones in the middle line (apex of the angle), and resting on the middle of the outer margin of the orbits. In Europeans, the average angle thus formed is  $131^{\circ}$ ; in African Negroes,  $134^{\circ}$ ; in Australians,  $135^{\circ}$ ; in all the true Mongolian races the average exceeds  $140^{\circ}$ .



difference between the sexes is not so great as in some races, though, as usual, the females have a somewhat higher index than the males, viz., 915, that of the latter sex being 906. The highest index is 971, the lowest 857. None, therefore, are microseme.

The most characteristic part of the face is probably the inter-orbital region, which is always broad and flat, and with scarcely any definite depression at the root of the nose. In this respect there is a considerable resemblance to the Mongolian races. The ascending or frontal processes of the maxillæ are, as pointed out by Quatrefages, very broad and flat, and with a convex surface in horizontal section. A much larger proportion of these processes is seen in the front face than in most skulls.

The nasal bones have a very characteristic shape, to which there is scarcely an exception in the series. They are small, flat, and very even in width, the sides being more nearly parallel than in most races. As shown by the indices (*see* Table I) the form of the nasal aperture presents some variations ranging from 447 to 578, both, however, very exceptional cases. The average nasal index of the whole series is 512, there being no marked difference between the two sexes. They are thus, as a race, mesorhine, with a tendency towards platyrrhiny. Taken individually, the twenty-four skulls are thus distributed: eighteen are mesorhine, five platyrrhine, and one leptorrhine.

The most characteristic form of the nasal aperture is triangular, the sides nearly straight, diverging moderately as they descend, and with a very straight inferior border, but a more oval form of aperture very frequently occurs. The inferior border itself varies much in construction. In some it is sharply defined and single, the lateral margin of the aperture being continued along the lower border into the spine (Plate III, Fig. 1), as is usually the case in Europeans. In others the lateral margin passes down on to the alveolar surface, separated from the spine and its lateral continuations by a distinct groove, so that the inferior border becomes double (Fig. 2). In some few the border is smoothly rounded, the floor of the nasal chamber passing insensibly on to the alveolar surface of the maxilla.

The nasal spine is always fairly developed, but never large. No. 2 of Broca's scale represents its usual condition, but there are cases in which it approaches No. 3.

The palate is generally flat, and neither broadly parabolic, nor hypsiloid, but rather between the two, and inclined to the V-shape, being usually narrower in front, or hyperbolic (Broca), with the molar series rectilinear and diverging posteriorly.

Among the numerous and sometimes complicated methods proposed for estimating numerically the important differences in the forward projection of the lower part of the face, I



cannot but give the preference, at all events for the present, to the very simple one of comparing the relative length of the basi-nasal and the basi-alveolar lines; the former measured from the basion (middle of anterior margin of foramen magnum) to the nasion (middle of naso-frontal suture), the latter from the basion to the most prominent part of the alveolar border. This is exceedingly easy of application, especially with the sliding calipers, with which all the cranial diameters mentioned in this communication are taken,\* and if in some cases not strictly accurate, in the large majority it certainly gives the desired information. Taking the average of skulls of all races, these two lengths are not far from being equal, but in the white races the lower measurement (basi-alveolar) very rarely exceeds the upper (basi-nasal), while in the black races it almost invariably does so; and the numerical ratio between the two dimensions, or the "alveolar index†" as it may be called, accords so truly with what is seen by the eye, and obtained by all other more complex and difficult systems of measurement (as those by which the various facial angles, and angles of prognathism are estimated), that there can be no doubt of its value. The basi-nasal length being taken as 1000, the ratio of the basi-alveolar length to it will give the required index.

When the index is below 1000, as in most Europeans, the skull may be called *orthognathous*; when it is above 1000, as in most negroes, it may be called *prognathous*; but following the usual example of a three-fold division in such cases, it will be most convenient to admit an intermediate category for skulls of an index of 1000, and two figures on each side, say between 980 and 1030, which may be called *mesognathous*.

It certainly happens that in some cases, as those in which the front teeth have been lost and the alveolar walls absorbed, the alveolar index cannot be estimated. In others it fails to give the true position of the face in relation to the cranium, especially where the lower edge of the basi-occipital bone is in an abnormal position, as for instance in skulls having a tendency to platybasic change, when the basion is elevated towards the vertex. In such cases the basi-nasal length is diminished and the basi-alveolar relatively increased, without any real change in the form or position of the upper jaw, and the index would express a greater degree of prognathism than really exists, but

\* A figure of this instrument is given in the Introduction to Part I of the Catalogue of the Specimens illustrating the Osteology and Dentition of Vertebrated Animals, in the Museum of the Royal College of Surgeons, 1879.

† A term which may be used to distinguish it from Mr. Busk's "gnathic index," founded on measurements nearly the same (the centre of a line connecting the external auditory meatuses being used instead of the basion), but which is the *difference* and not the *ratio* between the two measurements.

in the case of the Andamanese skulls there appears to be no difficulty on this score, as there is little variation among them in the form of the *basis cranii*.

The average alveolar index of the twelve males is 1014, of the twelve females 1022, or for both sexes 1018, so that they come into the mesognathous group, though just on the verge of the prognathous. The maximum is 1080, the minimum 957. The twenty-four when classified give eight as prognathous, eleven mesognathous, and five orthognathous.

The facial angle which has its apex at the alveolar point, and one limb passing through the centre of the external auditory meatus and the other through the ophryon (the ophryo-alveolar angle), measured by Broca's median goniometer, gives exactly corresponding results. It averages in the twenty-four skulls  $65.5^\circ$ . In Australian skulls this angle is  $64.5^\circ$ , in Italians  $68.0^\circ$ . Thus the form of the face of the Andamanese, estimated by this angle, holds exactly the same relative position between that of the Australians and the Italians, as it does when estimated by the alveolar index, the latter being, in round numbers, 1040 in the Australians, 1020 in the Andamanese, and 970 in the Italians.

The characters of the mandible present great uniformity throughout the series. As distinguished from the same part in a well-formed European skull, the horizontal ramus is very shallow, and of nearly even height throughout, the mental prominence little developed, the ascending ramus low, and broad from before backwards, the coronoid process ill developed, never or very rarely exceeding the condyle in height, and the sigmoid notch shallow.

The dimensions of the different specimens, taken according to Broca's "Instructions," are given in Table I.

#### *Teeth.*

From many of the skulls the teeth have been lost, either wholly or partially; in some few they are all present.

Loss of teeth during life, and caries, are both excessively rare in the series. There is but one case out of all the teeth examined which shows a spot affected with disease.

The malposition of the premolars, noticed in one of the specimens belonging to the Middlesex Hospital, described by Mr. Busk, and stated by Dr. Charles Smith to be common,\* does not occur in any other case among the present series, but crowding and consequent overlapping of the incisors, especially in the lower jaw, is very frequent. In two cases the lower canines are both rotated on their axes, so that their lingual

\* "Trans. Ethnol. Soc.," vol. iv, p. 210.

surfaces are directed towards the middle line, being in contact with the outer incisors (Plate III, Fig. 2). In one other, a tolerably aged subject, an upper canine is permanently retained in the alveolus, the apex only appearing.

In dimensions the teeth appear equal to the average of those of Europeans, and therefore may be considered large in relation to the general size of the body.

Superior dental prognathism or anterior projection of the upper incisors is marked in many cases, though not universal. The second molar rarely equals and never exceeds the first in size in either jaw. The third is invariably smaller, though it is present on both sides and both jaws in every case examined but one, in which (a cranium only), being rather an old subject, it may possibly have been lost. In the upper jaw its roots are usually connate in those cases in which their condition can be ascertained, though in one instance at least there are three distinct roots. In the lower jaw they are frequently double. The cusps of the molar teeth appear to be normally developed, but their condition is not seen to advantage in many of the specimens, as the surface is more or less worn in nearly all.

#### *Pelvis.*

The sexual differences in the lower part of the pelvis, especially in the form of the subpubic arch, are well marked, so that there is no difficulty in recognizing at a glance to which sex each of the seventeen pelves, available for examination, belongs. In general size and development, however, there is very little difference between those of the males and females. Notwithstanding their very small size they are strong and stout, and not one, even among the females, presents any deficiency of ossification in the middle of the iliac fossa, and many of them are not even diaphanous at this part when held to the light.

As a means of characterising different human races, the pelvis will probably be found to be, after the cranium, one of the most important parts of the skeleton. The very marked difference of conformation between the pelvis of man and that of the nearest allied animals would certainly lead to the belief that this might be so.

Unfortunately, owing to the deficiencies of our anthropological collections, the subject has not yet been fully worked out, for the individual differences in pelves are so great, that, as in so many other parts of the skeleton, the examination of one or two specimens is of not the slightest use, and it is only by means of the averages of a large series of each group that information of any

scientific value can be obtained. A system of measurement more uniform and commodious than those hitherto adopted should also be devised. Though not unmindful of the labours of Verneau\* and others in this direction, I have endeavoured once more to define and arrange in convenient order the measurements which appear most likely to give useful results in comparing pelves one with another, and have given the results as regards the Andamanese pelves in Table II.

But independently of these detailed measurements, which are set down for the benefit of those who may at a future time be able to derive some value from them by comparisons with similar observations on a sufficiently extended scale from other races, there is much interest in the study of "the pelvic index," or the ratio of the antero-posterior to the transverse diameter of the brim, the latter being taken as 100. This is the key to the general form of the organ, and gives the most concise numerical estimate of the differences between the pelves of different individuals and races. As is well known, the ratio is higher in children than adults, and is higher in all the anthropoid apes than in man. A high index is therefore an indication of an infantile, or of an animal tendency. In this, as in most other pelvic measurements, the two sexes must be taken separately, so that our already too scanty available numbers for averages are still further diminished. The interest of the following facts is however sufficiently significant, and will, I trust, stimulate further observations in the same direction. Verneau gives the average pelvic index of sixty-three male Europeans as 80. In eleven measured by myself it is 81. Seventeen male negroes, according to Verneau, have an average index of 89. Ten male Australians measured by myself give an average of 98. From these figures, and others founded on a more limited number of different groups of the black races, it may be taken as an established fact, that in these races the pelvic index averages considerably higher than in Europeans. The Andamanese follow the same rule, the eight male pelves measured giving an average as high as 101,† the minimum being 92·6, and the maximum 116·2, the longest and narrowest human pelvis I have ever met with. The female pelves give similar results. In Europeans, the average index of thirty-five measured by Verneau is 78, of fourteen measured by myself almost exactly the same. The average of the nine female Andamanese is 95·2, the minimum being 86·4, the maximum 107·8. It will be observed that in both cases the minimum among the Andamanese is very considerably above

\* Le Bassin, "dans les Sexes et dans les Races." Paris, 1875.

† Fritch gives the same for the average of six male Kaffir pelves.

the average of the Europeans; and that, perhaps contrary to what might have been expected, there is greater difference between the two sexes in the former than in the latter, but this may be due to insufficiency in the numbers observed. The form of the superior aperture in a very characteristic example of each sex is shown in Pl. V.

*Order and Definition of Pelvic Measurements.*

1. Inter-acetabular width. Distance between the posterior margins of the two acetabula, at the junction of the ilium and the ischium; the point for convenience called "*cotylon*."
2. Width between iliac crests. The maximum width between the outer edges of the crests, wherever that may be. This is the maximum width of the pelvis.
3. Width between the anterior superior spines of the ilium. The calipers being placed on the centre of the most prominent part of the eminence.
4. Width between ilia posteriorly. The minimum width between the ilia behind the sacrum.
5. Sacral width. The maximum width of the first sacral vertebra.
6. Width of third sacral vertebra. Its maximum width.
7. Width between spines of ischia. Measured between the extremities of the spines. These, unfortunately, are often broken.
8. Width between tuberosities of ischia. The maximum width between their external surfaces.
9. Sacral length. Length of the five united sacral vertebræ in a straight line, measured from the middle of the anterior edge of the body of the first, to the corresponding part of the fifth.
10. Total height. From the highest part (about the middle) of the iliac crest to the lowest part of the tuber ischii.
11. Height of ilium. From the highest part of the crest to the cotylon.
12. Length of crest of ilium. In a straight line between the anterior superior, and the posterior superior spines.
13. Transverse diameter of the brim of the pelvis. The greatest transverse diameter between the ilio-pectineal lines.
14. Antero-posterior diameter of the brim. From the middle of the anterior margin of the upper border of the first sacral vertebra to the nearest point on the inner surface of the symphysis pubis.
15. Height of acetabulum. From middle of the upper border, below and rather behind the anterior inferior spine of the ilium, to the opposite ischial border.



16. Width of acetabulum. From the middle of the pubic border to the cotylon.
17. Height of obturator foramen.
18. Width of obturator foramen.
19. Inter-obturator width. Width between the inner margins of the two obturator foramina.
20. From cotylon to symphysis pubis.
21. Sub-pubic angle.
22. Pelvic index.

$$\frac{\text{antero-posterior diameter of brim} \times 100}{\text{transverse diameter.}}$$

23. Index of height.

$$\frac{\text{greatest height} \times 100}{\text{inter-acetabular width.}}$$

24. Sacral index.

$$\frac{\text{maximum width} \times 100}{\text{maximum length.}}$$

#### *Scapula.*

Little attention had been paid to the form of the scapula as a race character, until the publication of a memoir by Broca in the *Bulletin* of the Paris Anthropological Society of last year.\* In this communication it was shown that one of the principal modifications of the form of this bone could be expressed by an index constituted by the ratio between the two chief diameters of the bone; i.e. the length, measured from the posterior superior angle to the inferior angle, and the breadth, from the middle of the posterior margin of the glenoid cavity to the point on the posterior or vertebral border from which the spine arises. The ratio of the length to the breadth, the latter being 100, is called the *scapular index*. In the anthropoid apes the index varies between 70 and 100. In most of the lower forms of monkeys and other mammals, it is considerably higher. A high index is therefore a sign of inferiority. Broca found that the average scapular index of twenty-three Europeans was 65.91. In order to verify this result, and to obtain a good standard of comparison with other races, my colleague, Dr. Garson, has measured two hundred scapulæ of Europeans, and finds the average index to be 65.2, showing a remarkable agreement with Broca's figures, but as the number of specimens measured was greater, the latter may probably be considered as more

\* Tom. I (3me ser.), p. 66, 1878. See also 'On the Scapular Index as a Race Character in Man,' by W. H. Flower and J. G. Garson. "Journal of Anatomy," vol. xiv., p. 13, Oct., 1879.



accurate. The twenty-five skeletons of negroes in the Paris Museum gave an average scapular index in Broca's hands of 68·16. In the collection under my charge, the number of negro skeletons is very small—only three in fact—but from the six scapulæ (for it is always desirable to measure both, as variations are frequently met with on the two sides), an average of 71·7 was obtained; and Australians (of which we have twice the number) gave an average of 68·9.

As only such scapulæ as have the epiphyses united ought to be measured, otherwise the relative dimensions will be considerably altered, several of the Andamanese skeletons could not be included in the available series. This precaution reduced the total number of scapulæ available to twenty-one. These gave an average index of 69·8, showing quite satisfactorily that in this character, as in the pelvic index, and, as will be shown, in the proportions of the long bones of the limbs, the Andamanese stand in close relationship to the negro, and also to the Australian, and differ widely from the European.

A distinct suprascapula notch is very rare; it occurs in fact in only three out of the whole number of bones examined. Generally there is a gradual and shallow excavation of the whole upper border, as in the anthropoids. In some cases, especially among the females, whose scapulæ are of remarkably diminutive size, the whole border is deeply excavated. In two cases the notch is bridged over and converted into a foramen. The surface for the attachment of the *teres major* is often well developed, forming a strong triangular projection on the anterior border.

#### *Limb Bones.*

The clavicles appear to be very small in proportion to the length of the other bones. The average length in the males is 116·0 millimetres, in the females 107·0, which is, as compared with the femur, as 29·1 to 100 for the males, and 28·3 to 100 for the females. In the average European male skeleton the clavicle is to the femur as 32·7 to 100.

Perforation of the supracondylar fossa of the humerus is very common, especially among the females, in which sex it occurs in eleven out of seventeen cases examined, while among sixteen humeri of males, there are only five instances of this condition. This is evidently in relation to the more powerful development of the bone in the male sex. In some of these the deltoid and other ridges for muscular attachment are very strongly expressed.

The form of the tibia varies also with muscular development, but on the whole it is usually more compressed than in Euro-

peans, though not perhaps to the extent of true platycnemy. The average latitudinal index of the tibia, or ratio between transverse and antero-posterior diameters at the middle of the bone, is, in sixteen male tibiae 647, and in seventeen females 675: while, according to Busk, the mean of the same index, in thirteen European tibiae, is 730.

Attention was first drawn to the fact that the proportions of the different segments of the limbs might differ in various races by the announcement in 1799, by White, of Manchester, since amply confirmed, that the forearm of the negro is proportionally longer than that of the European. Relative lengths of bones are far more difficult to estimate on the living than on the skeleton; but, unfortunately, skeletons of most races are so rare in collections, that we have at present but few reliable data on the subject. As in other parts of the structure, one or two examples are of little or no use, as in all races there are great individual modifications. It is only when a sufficient number can be obtained on which to base a fair average, that any satisfactory law can be established. The numbers in the case of the Andamanese are sufficient, at all events, for a very good approximation, although slight modifications in the averages will perhaps have to be made with further augmentation of materials.

The measurements of the individual bones are given in the appended tables, but I will here point out the principal results, both sexes being taken together, as there is but slight variation between them in this respect.

The first ratio or index is that obtained by the comparison of the upper and lower limbs compared with each other; the *inter-membral* index, or the length of the humerus and radius added together, compared with that of the femur and tibia, the latter being taken as 100. This ratio in the nineteen Andamanese skeletons is 68·3; in fourteen Europeans, measured in the same manner, it is 69·2; showing a slight diminution in the length of the arm of the former as compared with the latter. This has also been found by Broca to be the case with African negroes; the index given for them being 68·27, that of Europeans 69·73. This is caused entirely by the relative shortness of the humerus in the black races, which is the more singular, as it is a character which rather separates than approximates them to the anthropoid apes.

The *femoro-humeral* index (or ratio of the humerus to the femur, the latter being taken as 100), is about 100 in the chimpanzee, 120 in the gorilla, and 130 in the orang; in nine Europeans, according to Broca, 72·20, in eleven normal adult Europeans, from my own measurements 72·9, in sixteen negroes (Broca) 68·97, and in the nineteen Andamanese 69·8.

The *femoro-tibial* index is the ratio of the length of the tibia to the femur, the latter being 100. The average index of fourteen Europeans, measured by myself, is 82.1, the average of eleven Australians, also measured by myself, 84.9; of twenty-five negroes, according to Humphry, 84.7; of the nineteen Andamanese, almost exactly the same, viz., 84.5.

The *humero-radial* index or the length of the radius compared to the humerus, is perhaps the most important of these indices as presenting greater and more constant differences in different races. In all the anthropoids it is higher than in man, varying from 80 in the gorilla to 100 in the orang. Broca gives 73.9 as the average of nine European skeletons at Paris, and by a singular coincidence I have obtained exactly the same figures from quite independent measurements of fourteen skeletons in London. Eleven Australians in London give 76.5. Fifteen negroes in Paris give, according to Broca, 79.4; the nineteen Andamanese as high a figure as 81.0: higher than in any other known race.

It should be mentioned that the measurements given of all bones are the maximum lengths in a direction parallel to the long axis of the bone, and in the case of the tibia include both the spine and the malleolus.

Unfortunately the bones of the hands and feet are extremely defective in nearly all the skeletons at my disposal, so I must defer any observations of their peculiarities until better opportunities of examining them should occur.

### *Conclusions.*

The chief outlines of the physical characters of the Andamanese, or at all events of that portion of the race dwelling in the neighbourhood of Port Blair, may now be considered as fairly well known.

The hair is fine and curly and crisp, what is commonly called "woolly" or more properly "frizzly." A specimen sent home by Mr. Man, and for some of which I am indebted to General Lane-Fox, very much resembles that of the Bushman, though not quite so small or so much flattened when seen in section. As usual, the individual hairs differ somewhat in proportion, but there are many examples in which the short diameter is not more than half the length of the long diameter, so that it must certainly be placed among the most elliptical or flattened of any human hair known.

The general colour of the skin is described by all observers as quite as black as that of the majority of Negroes, whether African or Oceanic. The features, however, judging from photographs, possess little of the Negro type; at all events, little

of the most marked and coarser peculiarities of that type. The projecting jaws, the prominent thick lips, the broad and flattened nose of the genuine Negro are scarcely to be recognised in the Andamanese. All these characteristics of most of the black races are softened and refined away in the living face, as we have seen them to be in its osseous framework. In consequence of this, it has seemed doubtful whether, in a classification founded on physical characters, they ought to be placed in the same group with the other black and frizzly-haired races.

It is the opinion of many anthropologists that the character of the hair is one of primary importance in the classification of man. It would seem *à priori* very unlikely that, whatever the primitive ancestors might have been, hair so peculiar as that of the Negro and the Andamanese should have been developed independently in two distinct stocks. But still if it had been shown that the other essential physical characters of the Andamanese departed from those of the Negro and more closely resembled those of some other, as, for instance, one of the straight-haired races, the value of this character as indicating true affinity would be greatly shaken. To follow out such an argument, it is necessary to separate what is essential from what is incidental or merely superficial in the characters on which the comparison is based. Such a separation lies at the root of all problems of this nature that zoologists are called upon to solve, and in proportion as the difficulties involved in this delicate and often perplexing discrimination are successfully met and overcome, will the value of the conclusions be increased. These difficulties, so familiar in zoology, are still greater in the case of anthropology. The differences we have to deal with are often very slight; their significance is at present very little understood; our information is often extremely scanty, and when otherwise, is usually overladen with irrelevant and useless details; for in the present state of the science, not knowing what may be of importance and what not, those who collect facts have been obliged to heap together everything that appears capable of being recorded, believing that possibly at some future time it may prove of value—as witness the elaborate tables of cranial measurements, from which hitherto no useful results have been derived. It is certainly time now to endeavour, if possible, to discriminate characters which indicate deep-lying affinity from those that are more transient, variable or adaptive, and to adjust, as far as may be, the proper importance to be attached to each.

The study of such a race as the Andamanese would throw much light not only on their own affinities, but also upon the general value of anatomical characters in the classification of

man, if it could be thoroughly carried out by comparison with an equal number of individuals of other more or less related races, treated in the same manner. But, unfortunately, at present this cannot be. Of how few groups of the human species do we possess even a fair approximation to the average proportions of the limb bones, of the pelvis, even of the better-studied bones of the face and cranium?

Of the people most nearly allied to the Andamanese, the other Negritos, scattered here and there in the interior of various islands of the Malay Archipelago, but rarely, if ever, now found in a state of purity, we know really next to nothing. In the great work, "*Crania Ethnica*," now being published by Quatrefages and Hamy, all available sources of information regarding them have been laid under contribution, and their osteological characters, as deduced from the few specimens of crania in European museums, and their geographical distribution, have been described as fully as the scanty materials will permit. Their common characters are diminutive stature, dark complexion, frizzly hair, and short round heads. In details of cranial and facial conformation, the skulls that have been described and figured as belonging to this race, differ much among themselves, and certainly differ from the Andamanese; but then, as before said, the circumstances under which they live and have lived for centuries, with no impassable barriers separating them from Malays and other different races, have interfered with their purity. In the case of two skulls in the Museum of the College of Surgeons from the Philippines, which Quatrefages has attributed to Negritos, there is very little evidence, either external or internal, as to their origin, and one of them decidedly appears to me to be Malay. The Aeta or Ate' figured by Dr. Barnard Davis, however, does appear (as before mentioned) to resemble more closely the Andaman natives, and it is highly probable, although some of the evidence hitherto brought forward is not conclusive, that a race of which the Andamanese are members, was once distributed over the greater part of the Malay Archipelago as far as New Guinea, and perhaps (although here proof is scarcely forthcoming at present) over the south-eastern portion of the mainland of Asia. One difficulty in investigating the evidence of this question, is the resemblance which the skulls of another race inhabiting nearly the same area, the Malays, bear in many points to those of the Negritos, so that a combination of the frizzly hair of the Papuan with the round skull of the Malay, in a mixed race, might easily, though perhaps erroneously, be attributed to Negrito influence.

Granting that there is a distinct group of men, specially exemplified by the Andamanese, for which the term Negrito, first



applied by the Spaniards to those who inhabited the mountainous districts in the interior of Luzon, may be retained, what relation do they bear to the other frizzly or so-called woolly-haired races? These races at the present time occupy the whole of the continent of Africa south of the Sahara Desert, excepting such parts from which they have been displaced by European or Asiatic invaders, and also the greater number of the islands of the Western Pacific Ocean. This geographical distribution leads to a convenient division into African and Oceanic Negroes. The Negritos, it will be observed, are exactly interposed between the two, touching the area of, and intermingling with, the Oceanic Negroes in the East, but separated on the West from the African Negroes by the wide space of the Indian Ocean.

With the Oceanic Negroes, or Melanesians, as they are now commonly called, we might naturally suppose they had most in common. But this is not the case. Although the Melanesians vary much in stature, none are so small as the Andamanese, and some are fully equal to the average of the species. Their crania, whenever they are met with in a pure state, are remarkably long, narrow, and high; a peculiarity which has given rise to the word *hypsistenocephalic*, applied specially to them. The pure Fijians are perhaps the most dolichocephalic race in the world, and the New Caledonians and the New Hebrideans come near them. In this respect they are, therefore, as distinct as possible from the Andamanese. It is true that at the southern and northern extremities of their area of distribution, the head form varies from the ordinary type, becoming less compressed. The Tasmanians present an approach to brachycephaly\* and so do some of the Papuans. In the latter case intermixture with Negritos or Malays may be suspected, but this cannot be the case with the former. In no other respect, however, do they resemble the Andamanese. The projecting supraciliary ridges, the low orbits, the wide nasal aperture and the prognathism common to all Melanesians, and distinguishing them from Negritos, are all exaggerated in the Tasmanians.

As is well known, the African frizzly-haired races are mostly of moderate or tall stature, but there are among them some, as the Bushmen of the South, and others less known from the Central regions, as diminutive as the Andamanese. Dolichocephaly prevails among them, as among their Oceanic allies,

\* The average latitudinal index (76.3) of the Tasmanians given in the Catalogue of the Museum of the Royal College of Surgeons (1879), founded on the measurement of fourteen individuals is probably higher than would be given by a larger or more fairly representative series. Five crania in the Museum of the University of Oxford have an average index of only 74.1.

though not quite to the same extent, and a small race of round-headed Negroes from West Africa are mentioned by Hamy under the name of Negrillos, but as yet without details. Although as prognathous as the Oceanic Negroes, and more platyrrhine, as a general rule the orbit of the Africans is higher and rounder, and the forehead smoother, not unfrequently presenting the same absence of glabella and brow ridges seen in the Negritos of the Andamans. But from the majority of African Negroes, as from the Melanesians, the Negritos differ in the rounder brain-case, as shown by a cephalic index of 80 or upwards; smooth, flat brow; absence of glabella and of ridges generally for muscular attachments; rounder and thinner-edged orbits; narrower noses and less projecting jaw bones. The question to be considered is whether these differential characters outweigh those of agreement, as the nature of the hair, the colour, the form of pelvis, and the general proportions of the limbs.

If the general form of the cranium as regards breadth compared to length is to be considered of primary importance in classifying races, as Retzius and his followers thought, the Andamanese must be placed in a totally distinct division from the greater number both of Oceanic and African Negroes; but the variations seen in certain groups of both of these divisions, and the well-known cases in other races, as the Eskimo and the Asiatic Mongols, clearly allied in other respects, yet differing most widely in cranial form, show that this character can only be placed in the second rank of importance.

In estimating the value of many of the differences, we can scarcely fail to observe that they are of very much the same kind as those seen between the smaller and larger species or varieties of various groups of animals, and also between the young and the old of the same species. If the cranium of a small *Cercopithecus* or Macaque be compared with that of a Baboon; a Chimpanzee with a Gorilla; or a young Gorilla or Orang be compared with an adult of the same species, the relation will be seen to be very much the same as that between a Negrito and a large powerful Negro or a New Hebridean. There is certainly much that is child-like in the physical characters of the Andamanese, especially in those of the cranium. The smoothness of the brow, the high orbital index, the low alveolar index, are infantile characters. They are all found in the children of the Negro and Melanesian races.

Some characters, as the brachycephaly, seem special to the race; but in many of the others, when viewed in the light just indicated, there seems to be nothing which should so far contradict the indications derived from other sources, as to cause



the Negritos to be removed into a distinct primary group of Man. I would rather look upon them as representing an infantile, undeveloped, or primitive form of the type from which the African Negroes on the one hand, and the Melanesians on the other, with all their various modifications, may have sprung. Even their very geographical position in the centre of the great area of distribution of the frizzly-haired races seems to favour this view. We may, therefore, regard them as little-modified descendants of an extremely ancient race, the ancestors of all the Negro tribes. It is, however, equally open to anyone to entertain the supposition that many centuries of isolation and confinement to a limited space has caused them to retrograde to their present condition from one more fully developed, and that instead of representing an ancient form preserved in its purity, they may be a type of comparatively recent growth. Whichever hypothesis be ultimately adopted, their relationship, as shown by physical characters, to the other black races, is, I think, demonstrated, and a step thus gained in solving the complicated problem of the classification of the divisions and sub-divisions of the human species.

#### NOTE TO TABLE I.

For convenience of comparison, the greater number of the cranial measurements given are taken on the plan recommended in the "Instructions Craniologiques et Craniometriques," drawn up by Broca, and published by the Anthropological Society of Paris in 1875. Certain cases of deviation from these instructions will, however, require explanation.

1. *Capacity*.—The cranial cavity is filled to the utmost with mustard seed, poured in through a funnel of narrow aperture and well shaken. The seed is then measured in Busk's choreometer, being poured in through the same funnel and frequently shaken.

2. The length is measured in front from the ophryon instead of the glabella, which is properly a part of the face and not of the cranium.

14 to 17. The transverse arcs are measured from the spot on the ridge immediately above the middle of the external auditory meatus (posterior root of the zygoma), where it is crossed by the auriculo-bregmatic line (line from the centre of the auditory meatus to the bregma). They pass to the corresponding spot of the opposite side over the most prominent part of the frontal, parietal, or occipital bones, as the case may be, or the bregma (No. 15). The last corresponds with the *courbe sus-auriculaire* of Broca.

23 to 26. The projections are taken when the cranium is





	Sex.	1 Capacity.	2 Length (ophryo-occipital).	3 Height (basal-bregmatic).	Transverse diameters of cranium.					9 Index of breadth.	10 Index of height.	Horizontal circumference	
					4 Minimum frontal.	5 Maximum frontal.	6 Occipital (asteriac).	7 Bi-auricular.	8 Maximum parietal.			11 Pre-auricular.	12 Total.
R.C.S. ... 1202	♂	1260	165	134	90	108	102	113	137	83.0	81.2	206	475
R.C.S. ... 1205	♂	1280	166	124	92	116	107	119	139	83.7	74.7	215	483
R.C.S. ... 1206	♂	1195	171	133	90	109	108	106	133	77.8	77.8	206	482
R.C.S. ... 1207	♂	1330	168	132	92	116	96	112	138	82.1	78.6	220	490
R.C.S. ... 1211	♂	1360	171	130	95	115	107	115	135	78.9	76.0	215	492
R.C.S. ... 1217	♂	1170	166	128	92	107	101	108	130	78.3	77.1	210	470
Middlesex Hospital ...	♂	1150	172	125	93	109	104	119	132	76.7	72.7	224	481
Oxford ...	♂	1300	167	133	101	112	103	113	135	80.8	79.6	218	478
British Museum (Ingle)...	♂	1150	169	126	90	108	99	114	135	79.9	74.6	222	479
British Museum (Mouatt)	♂	—	160	128	85	110	100	111	135	84.4	80.0	206	467
Mr. Ball...	♂	1215	169	133	93	107	101	116	131	77.5	78.7	210	480
Dr. A. Thomson ...	♂	1280	166	130	91	114	103	118	139	83.7	78.3	208	483
Average of males...	...	1244	167.5	129.6	92.0	110.9	102.6	113.7	134.9	80.5	77.0	213.2	480

R.C.S. ... 1204	♀	1125	165	126	86	107	94	102	131	79.4	76.4	192	460
R.C.S. ... 1212	♀	1180	161	122	87	110	97	113	136	84.5	75.8	203	460
R.C.S. ... 1213	♀	1110	159	126	90	110	89	101	131	82.4	79.2	203	459
R.C.S. ... 1203	♀	1080	162	125	92	110	96	113	132	86.8	82.2	202	459
R.C.S. ... 1214	♀	1025	156	125	91	106	89	103	132	84.6	80.1	199	458
R.C.S. ... 1215	♀	1100	157	120	94	103	99	112	131	83.4	76.4	195	458
R.C.S. ... 1216	♀	1100	160	126	89	107	97	111	135	84.4	78.8	205	460
R.C.S. ... 1218	♀	1210	165	124	87	109	99	111	134	81.5	75.6	210	470
Middlesex Hospital ...	♀	1190	163	131	89	110	100	114	137	84.0	80.4	197	460
Oxford ...	♀	1080	162	124	87	107	90	103	130	80.2	76.6	197	458
British Museum (Ingle)...	♀	1250	167	127	93	111	105	112	136	81.4	76.0	212	470
Univ. Coll. ...	♀	1080	161	127	89	102	97	112	129	80.1	78.9	200	460
Average of females ...	...	1128	160.6	125.3	89.5	107.7	96.0	108.0	132.8	82.7	77.9	201.2	460

No.	Horizontal circumference.			Vertical transverse circumference.	Transverse arcs.				Longitudinal arcs.			Of foramen magnum.		Projection.			
	Pre-auricular.	Total.	Frontal.		Bregmatic.	Parietal.	Occipital.	Frontal.	Parietal.	Occipital.	Length.	Width.	Facial.				
137	83.0	81.2	206	475	412	268	293	315	247	125	120	106	32	27	—		
139	83.7	74.7	215	483	415	263	285	308	245	120	120	103	33	27	10		
133	77.8	77.8	205	482	400	258	285	308	264	126	125	107	33	25	14		
138	82.1	78.6	220	490	414	275	290	325	245	125	123	108	32	27	20		
135	78.9	76.0	215	492	420	273	290	325	263	120	135	105	34	30	20		
130	78.3	77.1	210	470	402	260	285	305	245	—	—	100	34	27	23		
132	76.7	72.7	224	481	405	265	273	300	245	117	119	106	35	31	15		
135	80.8	79.6	218	478	413	268	292	318	250	120	123	100	34	27	21		
135	79.9	74.6	222	479	402	260	275	300	245	117	115	106	32	26	—		
135	84.4	80.0	206	467	403	243	282	305	245	115	116	94	37	28	—		
131	77.5	78.7	210	480	412	—	285	—	—	—	—	—	35	32	6		
139	83.7	78.3	208	483	426	260	285	325	255	122	130	108	32	27	13		
7	134.9	80.5	77.0	213.2	480.0	410.3	263.0	285.0	312.6	249.9	120.7	122.6	103.9	33.6	27.8	15.7	
131	79.4	76.4	192	465	390	257	275	307	255	114	107	112	35	28	16		
136	84.5	75.8	203	468	395	260	275	307	250	113	127	98	33	28	6		
131	82.4	79.2	203	455	390	255	280	305	233	116	123	95	29	25	14		
132	86.8	82.2	202	455	405	256	279	300	220	118	118	95	28	25	8		
132	84.6	80.1	199	456	394	247	276	306	226	109	117	107	29	27	18		
131	83.4	76.4	195	454	387	245	265	295	232	108	116	100	32	28	14		
135	84.4	78.8	205	462	402	258	280	302	240	122	113	99	32	29	10		
134	81.5	75.6	210	474	400	260	282	310	245	117	125	100	33	28	18		
137	84.0	80.4	197	468	400	250	277	310	240	116	115	102	35	30	18		
130	80.2	76.6	197	453	385	255	273	295	237	112	110	106	31	22	11		
136	81.4	76.0	212	475	403	255	282	313	243	122	117	108	31	27	—		
129	80.1	78.9	200	462	394	255	277	296	235	114	110	103	33	27	20		
139	132.8	82.7	77.9	201.2	462.2	395.4	254.4	276.7	303.8	238.2	115.0	116.5	102.0	31.7	27.0	13.9	

TABLE I.—CRANIAL MEASUREMENTS.

Projections (visual axis being horizontal).							Diameters of face.							Of Orbit.		
23 Facial.	24 Anterior cranial.	25 Posterior.	26 Total.				30 Bregmatic.	31 Bjugal.	32 Inter-orbital.					37 Width.	38 Height.	39 Index.
—	—	—	—	92	89	967	119	111	24	76	24	13	63	36	33	91.7
10	80	83	173	93	93	1000	128	114	26	82	21	17	61	36	34	94.4
14	78	88	180	92	92	1000	120	106	21	80	21	18	60	36	31	86.1
20	78	88	186	96	98	1021	120	107	25	81	18	17	60	35	32	91.4
20	80	88	188	95	102	1074	125	111	23	90	25	18	66	36	34	94.4
23	74	86	183	97	97	1000	127	113	24	83	23	19	65	36	33	91.4
15	86	79	180	101	102	1010	131	117	26	89	25	22	68	38	33	86.4
21	81	84	186	98	102	1041	127	115	26	85	24	19	61	38	35	92.2
—	—	—	—	96	97	1010	126	114	25	82	18	19	62	36	32	88.4
—	—	—	—	92	94	1022	124	112	21	82	25	16	62	35	33	94.4
6	88	78	172	99	96	970	135	116	25	82	22	17	62	39	34	87.4
13	80	85	178	89	94	1056	126	115	21	81	23	18	60	37	33	89.4
15.7	80.5	84.3	180.6	95.0	96.3	1014	1,257	112.6	23.9	82.7	22.4	17.7	62.5	36.3	33.0	90.4
16	77	82	175	90	93	1033	114	105	23	79	18	16	61	35	33	94.4
6	79	80	165	88	86	977	118	102	22	71	16	11	59	36	32	88.4
14	77	80	171	91	92	1011	115	104	22	76	19	15	59	34	32	94.4
8	77	73	158	87	88	1011	115	105	23	75	22	15	59	35	32	91.4
18	74	77	169	88	95	1080	117	106	26	75	21	15	57	35	30	85.4
14	76	77	167	86	92	1070	119	109	22	74	20	19	57	34	32	94.4
10	78	79	167	90	88	978	117	104	22	75	20	19	61	35	32	91.4
18	77	84	179	92	97	1054	119	106	22	80	22	20	63	35	33	94.4
18	78	83	179	94	96	1021	121	104	21	81	20	17	61	34	31	91.4
11	79	80	170	94	90	957	115	103	22	75	19	14	61	34	33	97.4
—	—	—	—	93	93	1000	120	111	25	77	20	15	58	36	32	88.4
20	80	77	177	95	102	1074	122	116	26	79	19	22	64	39	34	87.4
13.9	77.4	79.3	170.6	90.7	92.7	1022	117.7	106.2	23.0	76.3	19.6	16.5	60.0	35.2	32.2	90.4

TABLE I.—CRANIAL MEASUREMENTS.

Projections (visual axis being horizontal).				27 Basal-nasal length.	28 Basal-alveolar length.	29 Alveolar index.	Diameters of face.			33 Height of Face.	34 Height of Malar.	35 Height of Alveolus.	36 Auriculo-orbital length.	Of Orbit.			Of Nasal Aperture.	
23 Facial.	24 Anterior cranial.	25 Posterior.	26 Total.				30 Bizygomatic.	31 Bijugal.	32 Inter-orbital.					37 Width.	38 Height.	39 Index.	40 Height.	41 Width.
—	—	—	—	92	89	967	119	111	24	76	24	13	63	36	33	91.7	46	24
10	80	83	173	93	93	1000	128	114	26	82	21	17	61	36	34	94.4	47	24
14	78	88	180	92	92	1000	120	106	21	80	21	18	60	36	31	86.1	40	21
20	78	88	186	96	98	1021	120	107	25	81	18	17	60	35	32	91.4	46	24
20	80	88	188	95	102	1074	125	111	23	90	25	18	66	36	34	94.4	49	25
23	74	86	183	97	97	1000	127	113	24	83	23	19	65	36	33	91.7	47	21
15	86	79	180	101	102	1010	131	117	26	89	25	22	68	38	33	86.8	50	25
21	81	84	186	98	102	1041	127	115	26	85	24	19	61	38	35	92.1	45	26
—	—	—	—	96	97	1010	126	114	25	82	18	19	62	36	32	88.9	45	22
—	—	—	—	92	94	1022	124	112	21	82	25	16	62	35	33	94.3	46	22
6	88	78	172	99	96	970	135	116	25	82	22	17	62	39	34	87.2	45	24
13	80	85	178	89	94	1056	126	115	21	81	23	18	60	37	33	89.2	43	23
15.7	80.5	84.3	180.6	95.0	96.3	1014	1,257	112.6	23.9	82.7	22.4	17.7	62.5	36.3	33.0	90.6	45.8	23
16	77	82	175	90	93	1033	114	105	23	79	18	16	61	35	33	94.3	43	21
6	79	80	165	88	86	977	118	102	22	71	16	11	59	36	32	88.9	42	20
14	77	80	171	91	92	1011	115	104	22	76	19	15	59	34	32	94.1	43	21
8	77	73	158	87	88	1011	115	105	23	76	22	15	59	35	32	91.4	43	20
18	74	77	169	88	95	1080	117	106	26	75	21	15	57	35	30	85.7	43	20
14	76	77	167	86	92	1070	119	109	22	74	20	19	57	34	32	94.1	42	20
10	78	79	167	90	88	978	117	104	22	75	20	19	61	35	32	91.4	42	20
18	77	84	179	92	97	1054	119	106	22	80	22	20	63	35	33	94.3	45	20
18	78	83	179	94	96	1021	121	104	21	81	20	17	61	34	31	91.2	43	20
11	79	80	170	94	90	957	115	103	22	75	19	14	61	34	33	97.1	45	20
—	—	—	—	93	93	1000	120	111	25	77	20	16	58	36	32	88.9	43	20
20	80	77	177	95	102	1074	122	116	26	79	19	22	64	39	34	87.2	45	20
13.9	77.4	79.3	170.6	90.7	92.7	1022	117.7	106.2	23.0	76.3	19.6	16.5	60.0	35.2	32.2	91.5	43.2	20



[To face page 132.]

Of Nasal Aperture.			Of Palate.			Angles.			MANDIBLE.								
	41 Width.	42 Index.	43 Length.	44 Width.	45 Index.	46 Facial (ophry. alv. auric.)	47 Nasal-Malar.	48 Basilar.	Width.		Height.			54 Gonio-symphysial length.	Of Ramus.		57 Mandibular angle.
									49 Bicorpylar.	50 Bigoniac.	51 Symphysial.	52 Molar.	53 Coronoid.		55 Height.	56 Ant. post. breadth.	
6	24	52.2	48	35	72.9	70°	137°	—	—	—	—	—	—	—	—	—	—
7	24	51.1	50	37	74.0	66°	133°	23°	112	103	22	21	45	81	46	32	117°
0	21	52.5	49	34	69.4	68°	131°	37°	99	85	29	22	57	81	55	31	116°
5	24	52.2	56	34	60.7	64°	128°	30°	112	90	24	22	57	78	53	32	114°
9	25	51.0	58	39	67.2	65°	138°	22°	—	—	—	—	—	—	—	—	—
7	21	44.7	53	37	69.8	65°	136°	28°	111	96	28	22	57	81	55	31	126°
0	25	50.0	56	36	64.3	66°	—	24°	—	—	—	—	—	—	—	—	—
5	26	57.8	55	35	63.6	65°	132°	35°	107	94	26	23	58	80	52	33	122°
5	22	48.9	53	35	66.0	—	143°	—	—	—	—	—	—	—	—	—	—
6	22	47.8	—	—	—	—	136°	—	—	—	—	—	—	—	—	—	—
5	24	53.3	51	36	70.6	66°	—	29°	—	—	—	—	—	—	—	—	—
3	23	53.5	54	39	72.2	62°	140°	25°	—	—	—	—	—	—	—	—	—
5.8	23.4	51.1	53.0	36.0	68.1	65.7°	135.4°	28.1°	108.2	93.6	25.8	22.0	54.8	80.2	52.2	31.8	118.6°

43	21	48.8	52	34	65.4	63°	133°	34°	96	75	27	24	53	70	50	33	115°
42	22	52.4	48	33	68.8	70°	145°	22°	105	89	22	20	47	79	50	31	111°
43	21	48.8	51	32	62.7	69°	132°	26°	98	80	24	23	48	76	50	33	113°
43	22	51.2	51	36	70.6	67°	134°	24°	103	88	25	22	51	83	47	33	113°
43	23	53.5	49	34	69.4	60°	124°	23°	102	86	24	19	50	75	48	32	125°
42	21	50.0	50	35	70.0	62°	139°	25°	106	91	27	23	50	75	55	32	120°
42	22	52.4	45	34	75.6	70°	134°	24°	107	90	21	20	48	79	45	30	118°
45	23	51.1	57	36	63.2	65°	134°	25°	104	80	31	24	54	77	53	33	120°
43	22	51.2	56	35	62.5	63°	—	36°	—	—	—	—	—	—	—	—	—
45	23	51.1	47	37	78.5	69°	131°	38°	105	86	23	21	49	71	49	29	119°
43	23	53.4	50	33	66.0	—	138°	—	—	—	—	—	—	—	—	—	—
45	23	51.1	57	38	66.6	60°	134°	30°	—	—	—	—	—	—	—	—	—
43.2	22.2	51.2	51.0	34.7	68.0	65.3°	134.4°	27.9°	102.9	85.0	24.9	21.8	50.0	76.1	49.7	31.8	117.1°



placed on a board with the visual axis (or at least a line which probably represents this axis, passing through the optic foramen and the centre of the anterior aperture of the orbit) horizontal. The facial projection is that part in front of a vertical line passing through the ophryon; the anterior cerebral, the portion between this and a vertical through the basion; the posterior cerebral, that part situated behind the basion.

29. The alveolar index is fully explained in the text at p. 119.

46. The facial angle is that of which the alveolar point is the apex, the limbs passing through the ophryon and the auricular point respectively, taken by means of Broca's median gomometer.

47. The nasi-malar angle is explained at p. 117.

48. The basilar angle is formed between a prolongation of the basi-nasal line and the plane of the foramen magnum, the apex being at the basion. NBY of the "Instructions," p. 92.

The measurements of the mandible correspond with those of the "Instructions," except that Nos. 3, 9, 10, and 12 are omitted and one is added, the coronoid height (No. 53) being the vertical distance between the summit of the coronoid process and the lower border of the mandible.

#### DESCRIPTION OF THE PLATES.

All the figures are from specimens in the Museum of the Royal College of Surgeons of England. The numbers refer to the Catalogue of the Osteological Specimens (1879). They are drawn half the size of nature, on a geometrical projection, the outlines being traced by means of Broca's stereograph, and then reduced. The plane of the visual axis is horizontal in the figures in Plates I and III, and vertical in those of Plate IV.

Plate II.—Side view of skull.

Fig. 1.—Male, No. 1205.

Fig. 2.—Female, No. 1214.

Plate III.—Facial view of skull.

Fig. 1.—Male, No. 1205.

Fig. 2.—Female, No. 1214.

Plate IV.—Upper surface of cranium.

Fig. 1.—Male, No. 1211. Narrow form. Latitudinal index, 78.9.

Fig. 2.—Female, No. 1214. Broad form. Latitudinal index, 84.6.

Plate V.—Pelvis. Looking directly upon the plane of the upper aperture.

Fig. 1.—Male, No. 1206. Index, 1102.

Fig. 2.—Female, No. 1214. Index, 990.

TABLE II.—PELVIC MEASUREMENTS.

	1 Inter-acetabular width.	2 Width between iliac crests.	3 Width between ant. sup. spines.	4 Width between ilia posteriorly.	5 Sacral width.	6 Width of 3rd Sacral.	7 Width between spines of ilachia.	8 Width between tubercles of ilachia.	9 Sacral length.	10 Total height.	11 Height of ilium.	12 Length of crest of ilium.	13 Trans. diam. of brim.	14 Ant. post. diam. of brim.	15 Height of acetabulum.	16 Width of acetabulum.	17 Height of obturator foramen.	18 Width of obturator foramen.	19 Inter-obturator width.	20 From Cotyion to symphysis pubis.	21 Subpubic angle.	22 Pelvic index.
<b>MALES.</b>																						
1206	133	205	175	56	88	65	105	100	100	169	101	124	88	97	44	42	38	21	39	87	63°	1102
1207	148	213	188	50	93	69	115	92	100	179	106	134	95	95	44	44	41	25	36	95	74°	1000
1210	149	221	172	54	88	70	120	98	183	183	108	127	95	88	50	47	46	29	37	101	72°	926
1209	149	212	183	51	95	73	118	100	173	173	104	127	95	98	46	44	42	29	35	95	73°	1032
1217	156	217	192	66	99	73	125	108	187	187	116	132	101	95	47	47	48	34	33	102	65°	941
1208	130	208	186	62	87	68	97	86	164	164	99	115	91	85	45	43	43	29	26	88	55°	934
Oxford.	144	225	198	60	96	64	111	98	179	179	107	134	94	92	48	46	45	24	33	95	55°	979
B. M. Dr. Ingle	126	196	177	55	84	70	103	95	170	170	100	117	80	93	47	45	44	25	33	88	60°	1162
Averages ...	141·9	212·1	183·9	56·8	91·3	69·0	111·8	971·2	175·5	175·5	105·1	126·8	92·4	92·9	46·4	44·8	43·4	27·0	34·0	93·9	64·6	1009·5
<b>FEMALES.</b>																						
1212	157	207	175	71	99	73	93	142	96	170	100	121	110	109	44	41	41	32	41	97	100°	991
1213	150	204	178	62	94	76	82	130	97	164	99	117	102	100	45	41	42	28	45	97	85°	980
1203	153	202	170	70	91	72	93	135	77	160	92	122	102	91	43	42	44	29	36	94	80°	892
1214	146	186	160	65	93	71	81	127	88	166	111	119	97	96	42	40	37	26	44	96	85°	990
1216	147	202	175	63	93	76	88	127	90	160	95	119	100	92	42	39	38	28	42	91	95°	920
1218	154	226	195	60	98	77	95	132	100	170	101	135	106	97	45	42	46	32	40	96	86°	915
Oxford.	149	197	172	64	98	76	125	99	172	172	105	124	102	110	47	44	43	27	44	96	80°	1078
Thomson (A).	152	206	171	68	100	76	93	139	82	158	106	124	103	98	49	46	48	33	43	97	93°	942
Thomson (B).	144	203	183	58	91	71	79	118	78	156	100	119	105	89	39	36	43	31	32	88	76°	864
Averages ...	150·2	203·8	178·4	64·6	95·2	74·1	87·1	130·9	88·7	165·4	100·9	122·6	102·9	980·0	43·2	40·8	41·3	28·8	40·8	94·7	86·3	952·4

TABLE III.—MEASUREMENTS OF LIMB BONES.

			Clavicle		Humerus		Radius		Femur		Tibia	
			r.	l.	r.	l.	r.	l.	r.	l.	r.	l.
R.C.S.	...	...	109	109	281	278	202	206	382	382	321	319
—	...	...	123	121	294	268	232	232	393	394	345	342
—	...	...	124	116	294	293	246	232	397	400	345	344
—	...	...	114	112	267	264	246	213	378	384	312	314
—	...	...	—	107	276	—	226	—	410	—	343	348
—	...	...	—	—	281	—	234	—	—	—	331	331
Oxford	...	...	121	121	281	277	228	228	—	410	—	340
British Museum (Monatt)	...	...	130	130	310	308	255	253	442	403	—	366
British Museum (Jangle)	...	...	109	108	275	277	222	221	385	389	324	324
Average of	...	...	116.9		281.3		228.9		398.7		336.2	
R.C.S.	...	...	110	107	279	275	217	211	390	393	323	328
—	...	...	97	—	248	245	—	200	359	360	304	306
—	...	...	107	107	249	247	201	200	367	370	300	299
—	...	...	102	103	262	255	211	208	384	380	323	323
—	...	...	114	114	256	—	214	210	380	381	317	316
—	...	...	—	97	244	—	198	197	358	358	303	305
—	...	...	112	116	279	274	217	213	393	391	336	331
Oxford	...	...	98	95	277	280	223	224	410	407	346	346
Dr. A. Thomson	...	...	113	112	253	249	214	209	364	364	316	314
Dr. A. Thomson	...	...	111	111	270	270	211	210	377	379	335	333
Averages	...	...	107.1		260.7		210.0		378.2		320.5	

MAY 13TH, 1879.

Prof. W. H. FLOWER, F.R.S., *Vice-President, in the Chair.*

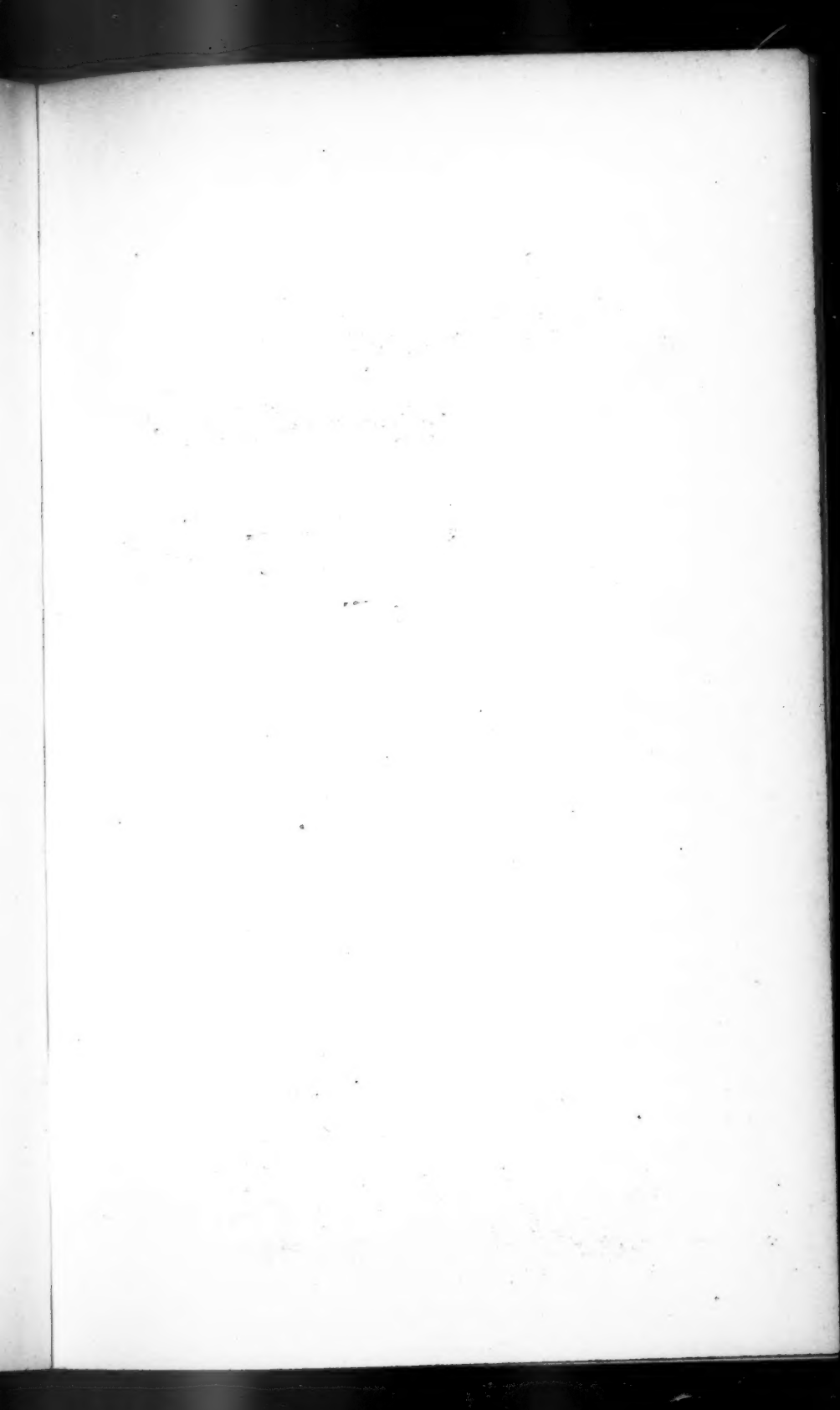
The minutes of the previous meeting were read and confirmed.

The following presents were announced, and thanks were ordered to be returned to the respective donors:—

## FOR THE LIBRARY.

- From the SOCIETY.—Journal of the Royal Asiatic Society. Vol. XI, Part 2.
- From the SOCIETY.—Proceedings of the Royal Society. Vol. XXVIII, No. 194.
- From the SOCIETY.—Proceedings of the Royal Geographical Society, Vol. I, No. 5.
- From the SOCIETY.—Transactions of the Asiatic Society of Japan. Vol. VII, Part 2.
- From the BERLIN ANTHROPOLOGICAL SOCIETY.—Zeitschrift für Ethnologie, No. 6, 1878; No. 1, 1879.
- From the INSTITUTION.—Journal of the Royal United Service Institution. Vol. XXIII, No. 99.
- From the ACADEMY.—Bulletin de l'Académie Royal de Copenhagen, Nos. 1 and 2, 1879.
- From the AUTHOR.—“Ancient Stone Implements in India.” By V. Ball, M.A., F.G.S.
- From the AUTHOR.—“Traces of an Early Race in Japan.” By Edward T. Morse.
- From the SOCIETY.—Bulletin de la Société de Borda a Dax, No. 1, 1879.
- From the SOCIETY.—Giornale della Società di Scienze Naturali di Palermo. Vol. XIII, 1878.
- From the GOVERNMENT.—Statistics of the Colony of New Zealand for 1877.
- From the SOCIETY.—Journal of the Royal Geological Society of Ireland. Vol. V, Part 1.
- From the AUTHOR.—Bara or Barata Fossil Words. By J. T. Thomson.
- Anthropologia. By D. Paolo Ricardi.
- Saggio di Studii interno alla professione della Pesca in Alcune Razzeumane. By D. P. Ricardi.
- From the EDITOR.—Revue Scientifique, Nos. 44 and 45, 1879.

A paper was read by HYDE CLARKE, Esq., V.P., entitled “The Ethnology, Mythology, and Philology of Races of Early Culture, Babylonians, Etruscans, Egyptians, Japanese, &c.”



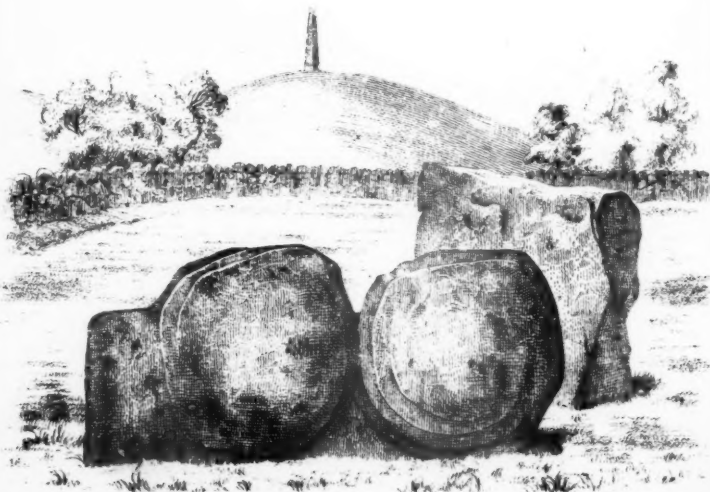




DRUIDS' ALTAR ; CARRICKMINES, NEAR DUBLIN  
from the South



DRUIDS' ALTAR ; MOUNT VENUS, NEAR DUBLIN  
from the West.



STONES AT KILLINEY, NEAR DUBLIN.

The following paper was read by the Author :—

NOTES on some IRISH ANTIQUITIES.

By A. L. LEWIS, M.A.I.

THE country round Dublin is considered by Irish Archæologists to be comparatively destitute of rude stone monuments, but nevertheless contains as many as some of those districts of England and Wales which are most fruitful in them. Thus, in the Island of Howth, on the north side of Dublin Bay, in the domain of Howth Castle, are the remains of a dolmen called "Finn's Quoit." The capstone, the extreme measurements of which are fifteen feet long and broad by six feet thick, has slipped from its supporters, of which seven remain in different positions, besides fragments, and now leans upon some of them, with one edge resting upon the ground, forming what has been called a demi-dolmen; the supporters were from six to seven feet high, and may have enclosed a chamber ten or twelve feet long, by five feet broad, the long sides of which stood in a direction N.W.—S.E. It seems to me probable that when this and similar chambers were constructed, the uprights were first fixed and the surrounding cairn or tumulus heaped up level with their tops, forming an inclined plane up which the capstone might be dragged on rollers and then covered or left exposed as might be thought best; if this were so, and if the surrounding cairn were afterwards removed, the uprights deprived of its support would be very likely to give way and let the capstone slip into just such a position as "Finn's Quoit" now occupies.

Turning to the south side of Dublin, in the grounds of "Mount Venus," a domain on the top of the hills, seven or eight miles from the city, is a large stone, twenty feet long (in line about N.W. and S.E.), ten feet broad, and three thick, leaning against an upright stone, eight feet high, and from three to five feet broad and thick, and forming, like "Finn's Quoit," what is sometimes called a "demi-dolmen." There are, indeed, some difficulties in the way of a restoration of this particular monument as a chamber, and, if there should be many monuments of the kind, it might be well to re-consider the possibility of their having been a special class by themselves. The difficulties in this case are that, while the position of the great capstone and the hollowing out of the ground indicate that the site of the chamber when perfect was on the north-east side of the upright stone, three other stones, which might have helped to support it, and which are all, except one fragment, that are

now visible, are on the south-west side of the upright stone; the largest of these (fourteen feet long, four and a-half broad, and two high), is moreover not of a suitable shape for a supporter of the larger stone, but might have answered very well for an altar, and it is possible that this might have been a "free-standing" dolmen or demi-dolmen with an altar in front of it—a place of sacrifice rather than of burial. The old man who drove me to the spot intimated that the visit to it was likely to lead to a double increase of my family, and this, coupled with the name of the hill, seems to point towards a tradition of phallic rites in connection with it.

About a mile from Killiney Station, on the line from Dublin to Bray, are some small remains known as the "Druid's Altar" and "Druid's Chair." The latter, in its present form, is evidently of comparatively recent construction, several stones (the different measurements of which vary from one to five feet), having been piled together and cemented into a rather imposing throne with arms and steps; these stones may originally have formed part of a circle surrounding the so-called "altar," which stone and another are from twenty to thirty feet from the "chair," and appear to be in their original position. The "altar" is nine feet and a-half long, four and a-quarter above ground, and one thick, and has a deep notch in the middle in which it is said the neck of the victim was placed on the occasion of a sacrifice;\* one side of this stone faces nearly north-east, and looks towards a round-topped hill now surmounted by an obelisk, and, if it were the central stone of a circle, it might in this way give that special reference to the north-east which I have so often found to exist in England, and would do so in a manner similar to the circle at Penmaenmawr, described by me in the "Journal of the Anthropological Institute" in November, 1877; the back of this stone is so shaped as to form two rude circles, which may represent the double disc found on inscribed stones in Scotland, and supposed to be a solar emblem, and the notch already referred to is the division between the two circles. Part of the fence enclosing these stones (at a distance of about forty feet), consists of a small bank of earth faced with loose stones, and may be the remains of an original enclosure.

Perhaps the finest dolmen near Dublin is that in the "Druid's Glen," Carrickmines, where five upright stones of considerable size support, at a height of five feet from the ground outside, a capstone, seventeen feet long, fourteen and a-quarter wide, and from two to five thick, forming a chamber about ten feet square, the interior of which is three feet below

\* Many other harrowing but quite imaginary details are narrated concerning these stones in the guide-books.

the level of the ground outside; several small stones forming a square on the east side of this chamber are probably the tops of the stones of a second chamber now filled with earth; if this be so this dolmen would very much resemble that at Plás Newydd in Anglesea, except that the Irish dolmen is in all twenty-six feet long, while the Welch dolmen is only twenty feet long, and that the former bears about due east and west, the larger end being at the west, while the latter bears a little east of north, the larger end being to the north-east. Besides the supporting stones I have mentioned, there are three others which formed part of the chamber, and it is noticeable that instead of being in a line the stones forming the sides of the chamber overlap each other; the "Trevethas Stone" in Cornwall is the only other example of this peculiarity of construction that I am able to point out at present. The Carrickmines dolmen is situated in a valley near a small stream, in opposition to the general rule, according to which such monuments usually stand so as to command a good view of the surrounding country, if not actually on the top of a hill.

Several other monuments of the kind are said to exist near Dublin, and, so far as I could make out (for the indications I could get of their whereabouts were not very precise), principally in the same district as those last described. Thus, two circles are said to stand somewhere near Tallaght, and dolmens at Kiltarnan and Shankhill, and the remains of one near Sandymount, while another brought from some other place stands in the Zoological Gardens in Phoenix Park. I should have liked to have visited some of these, but a variety of circumstances prevented me from doing so.

\* \* \* \* \*

The largest of the Irish domed sepulchres is the great New Grange tumulus, situated between Navan and Drogheda, and about five miles from the latter; this is said to be seventy feet high, and has a gallery sixty-three feet long, having twenty-two stones on one side, and twenty-one on the other, varying from two feet and a-half high at the entrance to seven next the termination, which is a domed-roofed chamber, with three recesses, the walls of which are formed of eleven stones, the dome and the roof of that end of the gallery nearest to it being made of stones projecting one over the other till they meet at the top, while the passage at the entrance is only two feet and a-half high by three feet and a-half wide, and is spanned by a single stone. The passage bears about twenty degrees west of north by compass towards the chamber, so that the entrance is about true south.

This tumulus and chamber have often been compared with

those of Gavr Inis, in the Mer de Morbihan, Brittany. I have visited both, and, though time did not suffice for me to take detailed measurements of either, I may with advantage mention some of the points in which they differ.

The differences which are most apparent are that the tumulus of New Grange is much larger than that of Gavr Inis, and its gallery longer, and that it is surrounded by a retaining wall of uncemented masonry, some five or six feet high, outside which is a bank of earth, of about the same height, outside which again was a circle of stones, of which ten or a dozen now remain, in various states of preservation, the largest being about seven feet high by four broad and thick, none of which surroundings appear to have existed at Gavr Inis. Amongst the less apparent differences may be mentioned that the gallery at New Grange runs nearly south and north, that at Gavr Inis nearly south-east to north-west; that the chamber at Gavr Inis is smaller, has no recesses, and has a flat instead of a domed roof; and here I may point out a coincidence between the shape of the Irish cross, in which the junction of the limbs is enclosed in a circle, and the ground plan of some of these Irish dolmens, where the central chamber answers to the circle and the gallery and recesses to the limbs of the cross. In England we have cruciform chambers, such as Wayland Smith, or that at Wellow near Bath, without a circular chamber, and crosses without the surrounding circle. At Gavr Inis nearly all the stones of the chamber and gallery are covered with markings, while at New Grange they are found only in the recesses to the right and left of the chamber and on two stones outside the gallery, and although there is a general resemblance in the character of the markings, yet in detail they are very different, the only ones which are the same being the zigzag marking which occupies in each dolmen the edge of one or more of the stones forming the floor or roof, and may have been the source from which the zigzag moulding so common in our earliest ecclesiastical architecture was derived. At Gavr Inis the general form of the markings is that of segments of concentric circles springing out of one another like a conventional representation of a fountain, while at New Grange, in some cases at least, the incised line starts from a centre and runs round and round it like a coiled watch-spring. Gavr Inis again has figures of its own, which are thought to represent stone axes, and has also a hollow in one of its stones with bars in front worked out of the solid stone, while New Grange has other figures on what are called the upper and lower lintels outside the entrance. The edge of the upper lintel is ornamented in relief with a chain of open lozenge-shaped figures, each of which has a bar connecting the



top and bottom angles ; an attempt has been made to connect this with the ornamentation of some stone and earthen vases in the Museum of the Royal Irish Academy, but they have the connecting line running from end to end of the chain of lozenges, and, as the lozenges are not always exactly joined, it may be doubted whether they are, on the vases, anything more than a double row of zigzag lines with a straight line between. On the lower lintel are four circular figures, originally in bold relief, but now much weatherworn, two of which are nearly two feet in diameter, the other two smaller ; these are formed of lines starting from the centre and curling round upon themselves, but the large pair, and I believe both pairs, are connected by lines at the side, very similar to those of the "double disc," which occurs on some of the Scottish stones, and has been considered to be a solar emblem ; a very similar marking, but smaller, is figured in the catalogue of antiquities in the National Museum of the Society of Antiquaries of Scotland on a stone from a "Pict's House" in Eday, Orkney (p. 115, G. 4). Col. Forbes Leslie in his *View of the Entrance to New Grange* represents six circles, whereas I only saw four, but he omits the connecting lines, which are of some importance, and which certainly exist. He also figures a double disc with sceptre from Aberdeenshire, the ends of which are ornamented with concentric circles or horse-shoes not unlike the Northumbrian rock circles. The tombs on the Loughcrew Hills, a few miles from New Grange, contain markings, some of which, according to Mr. Conwell's illustrations, resemble those of New Grange, while some more nearly resemble those of Gavr Inis than any I saw at New Grange, and others find no parallel in either place. In the recesses of these tombs are found large stones slightly hollowed out and covering nearly the whole floor of the recess ; these, so far as I know, do not occur elsewhere.

Mr. Gladwell, the hospitable master of Dowth Hall, near New Grange, invited our attention to a small chamber in his lawn of similar construction to that of New Grange ; the top stones of the dome have been removed, showing a chamber about eight feet in diameter and height, with three niches and a gallery of unknown length running a little south of east ; there are, I believe, many similar chambers within a short distance.

In Mr. Gladwell's grounds there is also a rath or fort consisting of an earthen rampart, six feet high inside, and in places as much as twenty feet high outside, enclosing a circular space about one hundred yards in diameter, and having entrances to the north, east, and west.

In the burial yard of the old Abbey Church of Slane, near Navan, are two rude stones which are locally supposed to mark

a "pagan's grave"; they are about four feet and a-half high, by two to three wide, and nine inches thick, and stand from four to five feet from each other in a line about east and west. These stones might well have formed part of a shrine-like chamber, like those in India described by Mr. Walhouse, and like that on the Great Orme near Llandudno, and it has occurred to me that if such a shrine were there, on the top of the lofty hill of Slane, it might have led to the building of the abbey: a circumstance which needs explanation, as abbeys were usually built in valleys where land is fertile and water near at hand. The burial of a pagan *as such* in a Christian cemetery would be another circumstance which would require explanation, but such a shrine as I have imagined might well, after the building of the abbey, have fallen into ruin, and its remains have preserved only such a tradition of their origin as is conveyed in the idea of their marking a pagan's grave; this, however, is at best mere hypothesis, and the stones may not be of great antiquity, but may have derived their name from their unworked condition.

It is naturally difficult to touch on Irish antiquities without attacking the "burning question" of Round Towers. These have been thought by some to have been used as fortresses to secure the lives and more valuable portable property of those living near, in case of sudden invasion, and they may have been used in that way sometimes, but their form precludes the idea of that having been their original object. It has been thought by others that they were bell towers to the churches, to which it has been objected that the only bells used in early times were small handbells, and that there are no traces of the suspension of larger bells. To those who have looked upon them as observatories for planetary worship and divination, it has been objected that they are always situated in valleys, and to those who would have them to be fire temples it has been pointed out that the floors and stairs (if any) were of wood. Father Smiddy considers them to have been baptistries and compares them to the Tower of Pisa and baptistries at Florence, Ravenna, and St. John Lateran of Rome, and considers his theory to explain some obscure points in the old Irish rubrics. Some stress has been laid by those who uphold the Christian origin of the towers upon a figure over the door of the Donaghmore Tower, which is considered to represent the crucifixion. But it has been objected to this that the arms are straight instead of being slightly raised; this objection does not seem to me to carry great weight, since, if O'Neill's beautiful lithographs are to be trusted, very similar figures with the arms straight and not raised are to be found on the crosses. The whole argu-



ment, however, seems to me to be of but little importance, because I have no doubt that the frame of the doorway, including the figure, was built into the tower some time, and probably some long time, after its first erection.

A phallic intent has been seen in the round towers, as in almost every other ancient object by those who look for it, and it must be admitted that the shape of the towers gives much reason for the notion in their case. It may also be remarked that the Babylonians had towers in their temples, on the summit of which were altars.

I believe it is established that wherever a round tower has existed, an ancient church has stood close by, but there is no reason to believe that wherever an ancient church has existed, a round tower has also existed, which shows that the towers did not go to the churches, but that the churches went to the towers, or that if either were built before the other the tower was built before the church. This makes it probable that the towers were places of assembly, most likely for religious purposes in immediately pre-Christian times, and that the missionaries, in accordance with their known policy, built their churches close by them, and ultimately took possession of them, and while taking advantage of whatever prestige belonged to them converted them in all likelihood to such uses as they could conveniently be put to as storehouses, places of refuge from very short and sudden attacks, watch-towers, bell-towers (for handbells only), and perhaps even as baptistries, as suggested by Father Smiddy; the fact of the towers being cemented, and well cemented too, seems to me to be an argument against their being of much greater antiquity than Christianity, as we have no trace left of any cemented building in other parts of the British Isles of greater antiquity than the Roman period.

When, however, we consider the probable primary object and origin of these round towers, it seems to me that the first step is to inquire where any similar edifices are to be found. With the exception of one or two doubtful specimens in Scotland and Man, which, if really round towers, are practically part of the Irish group, and with the possible exception of the Italian baptistries claimed by Father Smiddy as identical both in design and purpose with the round towers, there are no ancient buildings like the latter anywhere in Christian Europe. If, however, we go to Mahometan countries our attention can hardly fail to be attracted by the minarets, which are more inseparable companions to the mosques than the round towers are to the Irish churches, and which resemble the towers in appearance as well as in situation, the principal difference being that the minarets generally have galleries outside. I

am not going to infer from this similarity that Mahomet was an Irishman (though I am not sure that he may not have been claimed as a Scotchman), nor that any colony of Mahometans ever settled in Ireland, but I do think it probable that the minarets and the round towers are developments of the same idea. The Mahometans must certainly either have invented minarets or have borrowed them from some previously existing form of paganism—if the latter, the Irish towers were probably derived from the same source, but if the minarets were a Mahometan invention there must have been some idea at the bottom of that invention, which idea might have been developed in the same manner in Ireland, although in another form of religion. Without attaching too much importance to the Irish traditions, which nevertheless ought not in my opinion to be entirely ignored, I may mention that some of them attribute the round towers to a people coming from the north of Africa, a locality from which the Mahometans might well have derived their minarets and their custom of summoning the faithful to prayers from them. It is surely not unlikely that some such custom may have prevailed in some part of Northern Africa and in Ireland, and that the voice of the pagan muezzin may have been emphasised by those little handbells, which are not unlike the African bells of the present day, and the use of which was, like so many other modern Christian forms and customs, undoubtedly derived from paganism of some kind. I am aware that this suggestion can only be looked upon as a hypothesis until the particular form of African paganism which I have imagined can be proved to have existed, and until the descent of the minarets and round towers can be actually traced to it, and I am also aware that in advocating this or any other hypothesis about the round towers I am sure to lose, in some quarter or other, any little credit as an archæologist which I may previously have enjoyed.

#### DISCUSSION.

MR. HYDE CLARKE said it appeared to him there was value in Mr. Lewis's suggestion in the connection between round towers and minarets. The round tower may, or may not, have anything to do with the minaret; but Mr. Lewis asked how came the Mahometans by the minaret? It was most naturally suggested that this Mahometan practice was borrowed from an older one. Jewish it was not, and at that epoch it could scarcely have been distinctively Christian. Like the Kaaba, and many other things, it may have been local and pre-Islamitic. The minaret in this day is always attached to a mosque, but a church is not always attended by a round tower. It is possible that the minaret and the round tower, as proposed by

Miss Buckland, may have called people to worship in an open place. For himself, he knew nothing of the origin of the minaret, and must leave it to the competency of Islamitic scholars. He was more strongly impressed than before by the attention which Mr. Lewis had directed to the stone outside the circle and thought it must be of importance. The emblem of the crescent, for example, is commonly attended by a star.

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MAY 27TH, 1879.

E. BURNET TYLOR, Esq., F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following presents were announced, and thanks were ordered to be returned to the respective donors:—

FOR THE LIBRARY.

From the AUTHOR.—French Accent. By A. H. Keane, Esq.

From A. H. KEANE, Esq.—Wallace's Australasia.

From the AUTHOR.—The True Theory of German Declension and Conjugation. By A. H. Keane, Esq.

From the AUTHOR.—The Devonshire Ash-tree Charm. By W. Pengelly, F.R.S.

From the ASSOCIATION.—Journal of the Royal Historical and Archaeological Association of Ireland. No. 36.

From the ACADEMY.—Atti della R. Accademia dei Lincei. Vol. III, No. 5.

From the EDITOR.—Revue Internationale des Sciences, No. 5.

From the EDITOR.—Revue Scientifique, Nos. 46 and 47, 1879.

From the EDITOR.—Index Medicus. Vol. I, No. 4.

E. W. BRABROOK, Esq., F.S.A., Director, read a paper by HODDER M. WESTROPP, Esq., entitled "Notes on Fetichism." The Director also read a communication from JOHN MATHEW, Esq., entitled "Letters to Professor Max Müller on the Kabi Dialect of Queensland."

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JUNE 10TH, 1879.

HYDE CLARKE, Esq., F.S.S., *Vice President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The Election as a Member of W. WAVEL, Esq., late of the Bengal Civil Service, was announced.

The following presents were reported and thanks were ordered to be returned to the respective donors:—

FOR THE LIBRARY.

From the EDITOR.—*Archiv für Anthropologie.* April, 1879.

From the SOCIETY.—*Proceedings of the Royal Geographical Society.* Vol. I, No. 6.

From the SOCIETY.—*Proceedings of the Royal Society.* Vol. XXVIII, No. 195.

From Miss BUCKLAND.—*Journal of the Folk Lore Society.* Vol. I, Parts 1 and 2.

From the EDITOR.—*Revue Scientifique.* Nos. 48 and 49, 1879.

From the EDITOR.—“*Nature*” (to date).

The following paper was read:—

NOTES on some CORNISH and IRISH PRE-HISTORIC MONUMENTS.

By Miss A. W. BUCKLAND.

A RESIDENCE of some months in the extreme west of England has convinced me that although much has been written respecting the ancient monuments of Cornwall, the subject is still far from exhausted. I have therefore supposed that a brief comparison between those existing in the Cornish Peninsula and those in Ireland, assigned by most antiquaries to the same race, may not be altogether devoid of interest, and may perhaps lead to a fuller investigation of the similarities and differences existing between them, as illustrative of the manners and customs of those pre-historic races or tribes, which have together, or in succession, occupied these lands.

The sepulchres of a country are always of especial interest, as illustrating the religious beliefs and every-day life of races, many of which can now be traced only by these remains; and since the rites of sepulture are adhered to with great pertinacity

by rude and semi-civilised peoples, the probability is great that when we find sepulchral monuments varying in structure placed side by side, we see the remains of distinct races, or at least of different tribes, who have, either together or at different periods, occupied that spot.

The sepulchral monuments of Cornwall may be divided into Tumuli—including chambered barrows or Giants' Graves—Monoliths or Menhirs, some inscribed—Circles,—Cromlechs or Dolmens, locally called Quoits,—and perhaps Holed Stones. These all have their counterparts in Ireland, yet not without differences, which are probably significant of changes in time, if not of race, and when we come to examine the non-sepulchral remains, which in Cornwall we may reckon as consisting of Hut Circles, Cliff Castles, Caves and Crosses, the differences are yet more marked; whilst the Round Towers, and I think also the Rathes of Ireland, seem to be altogether wanting in Cornwall.

The first noticeable point in the sepulchral remains of the two countries under consideration, is the absence from both of the long barrows which are considered to represent the tombs of the earliest inhabitants of Great Britain, or rather of the earliest *tomb builders*, because I believe as yet no tombs have been found of that early palæolithic race, which undoubtedly inhabited some parts of Britain at a period not long subsequent to the Glacial Age. I do not know that any trace of this very early race has been discovered either in Cornwall or in Ireland, and the absence of long barrows, which are usually referred to the later neolithic period, would seem to denote that these countries remained uninhabited until the age of bronze. We must, however, remember that tumuli were only erected over chiefs or great men, and therefore probably were not reared at all until a sort of ancestral worship had developed itself among men, and this presupposes a state of warfare, since chieftains honoured in this manner were usually so honoured as having distinguished themselves in battle, therefore their presence would seem to signify the intrusion of a foreign and hostile race, causing battles and slaughter; although whether the tumuli were the graves of the intruders or of the original inhabitants, must, at present, remain doubtful. But it is by no means certain that the tumuli in Cornwall and Ireland represent the *earliest* tomb builders, for in both countries, menhirs, circles, cromlechs, and chambered tumuli or giants' graves abound, and these, although not peculiar to Great Britain and Ireland, certainly represent in these countries very ancient modes of burial.

#### *Menhirs.*

"The very early pre-metallic Irish," says Sir William Wilde,

"probably the Firlbolgs, buried their dead lying at full length, in a stone sepulchre covered with a huge monolith . . . The sarcophagi in which these early Irish people were entombed with flint weapons and shell ornaments but no remains of metal, were originally covered with mounds of earth." \* The skulls of the race thus interred he describes as being "remarkably long from before backward, and somewhat flattened at the sides, with strongly marked features, square orbits, and thick brows, high cheek bones, projecting mouths and teeth, long lower jaw, a narrow square pointed chin, and a high prominent nose, not unlike the heads of inferior races figured on some of the very early Etruscan potteries, and all indicating a dark visaged dark haired man, who probably had a deep-set, bright blue, or light grey eye, so characteristic of the Irish Celt." † I do not think this long-headed race has been traced in Cornwall, where cremation seems to have been the ordinary mode of burial, since most of the interments under the great menhirs which abound there have been found to consist of burnt bones, either in urns enclosed in cists, or frequently without either. Mr. William Copeland Borlase says "extended burials are very rare in Cornwall, and of contracted burial only one authentic instance can be cited." ‡ Although in most cases the gigantic standing stones wherever found, mark the sites of graves, this is not invariably the case, for of "the Pipers," two huge Cornish monoliths, Mr. Borlase says he could find no trace of a sepulchral origin after careful examination. These "Pipers," which measure 15 feet and 13 feet 6 inches in height, stand 85 yards apart, pointing north-east and south-west, and about 260 yards in the latter direction lies the circle called the Nine Maidens, or popularly the Dance (Dawns) Maidens, with which they are traditionally associated, since the legend says the Dance Maidens were girls turned into stone for dancing on Sunday, the "Pipers" having been the musicians on that memorable occasion. Another tradition makes these stones to mark the position occupied by the Kings Howel and Athelstane who here fought a great battle.

Thirteen huge monoliths, mostly granite, still stand in that remote corner of England lying between Penzance and the Land's End, whilst many have doubtless been destroyed, and some have been converted into crosses, a process which Borlase traces also to Ireland, where, he says, "some of these stones erect have crosses cut on them, which are supposed to have been done by Christians out of compliance with the Druid prejudices." The same writer gives two curious quotations from ancient

\* "Ireland Past and Present." Sir W. R. Wells Wilde.

† *Ibid.*

‡ "Nænia Cornubiæ."



authors as to the use of these menhirs. "Demetrius Phalereus" he says "ordered in Athens that no person for the future should have a stone on their tumulus higher than three cubits, and Olaus Magnus tells us that it was one of Woden's laws to erect high stones on the graves of famous men."\* Here then we see an extension of the same custom from south to north of Europe, and there can be no doubt that the majority of those still to be found in Cornwall and Ireland were erected as sepulchral monuments, although some were perhaps boundary or simple memorial stones. In both countries they seem unusually numerous, a point perhaps of ethnological importance, as although they are roughly hewn from stone abundant in the neighbourhood, it must have required both skill and numerical strength to hew them, however roughly, and erect them in their present positions, where they are buried many feet in the ground to secure their permanent uprightness. Three stones in Cornwall, much inferior in height and size to the thirteen before mentioned, bear inscriptions in Roman characters, but all the rest are, as far as I can ascertain, perfectly plain, unpolished and ungraven,† standing mostly upon high ground but not *on* tumuli, although in some cases tumuli have been found in connection with them.

### *Circles.*

Although few archæologists will accept Mr. Fergusson's dates as to the period to which the rude stone monuments in Britain are to be assigned, yet probably there is a germ of truth in the theory which makes lines and circles of standing stones to represent fields of battle, and the graves found beneath them to be those of chieftains killed in the battle represented. That circles generally have a sepulchral character can scarcely be gainsaid, although whether that was the only or chief reason of their erection may fairly be doubted.

Mr. Borlase‡ tells us that only one interment has been found in Cornish circles, and since nine of these circles still exist within the limited space already named between Penzance and the Land's End, it may fairly be assumed that sepulchre was not the chief object in the erection of the Cornish circles. The stones composing the circles, as well as the circles themselves, in Cornwall are small, compared with those in many parts of Britain; they are generally known locally as "the Nine Maidens," and consist for the most part of nineteen stones, sometimes

\* "Antiquities of Cornwall." Borlase.

† Mr. Borlase in a recent letter to the "Athenæum" mentions the discovery of cup-markings on one of these menhirs.

‡ "Nenia Cornubiæ."



supplemented by one in the centre, and they have no avenues. Mr. Borlase mentions one set of nine maidens, that of Saint Breock, which do not form a circle but consist of nine erect stones, from 11 feet to 5 feet 6 inches high, forming a single line north-east and south-west, with a menhir called the Old Man in the same line, which may, perhaps, be part of an avenue, and under some of these burnt bones, without urns, have been found; but undoubtedly the majority of the Cornish circles are devoid of those avenues leading to the entrance which are commonly found elsewhere.

Canon Greenwell\* has remarked upon the studious incompleteness of most of the circles, especially of those intended for sepulchre, but I do not think this is applicable to the Cornish circles, where the stones appear to have been arranged at equal distances, so that it is not easy to discover the entrance; and this perhaps is an additional proof that they were *not* intended for sepulchre. The Irish examples, on the contrary, seem to follow the rule observed elsewhere; they most of them enclose one or more sepulchral chambers and have short avenues attached. In both countries it may be remarked that although the numbers of these monuments greatly exceed those in the remainder of the kingdom, yet in size they cannot be compared with such structures as Avebury and Stonehenge. Whatever may have been the religious, astronomical, or other design of these singular structures, they must at present be set down among the enigmas of archæology, although their analogy with monuments still erected in India would lead to the conclusion that they are memorial stones in some way connected with ancestral worship.

#### *Cromlechs.*

Of Cromlechs, locally known as Quoits, Cornwall possesses some very fine specimens. Some of these were formerly covered by a tumulus, but others standing on elevated ground were probably always uncovered, since the surrounding country is heath land, and quite uncultivated. The stones of these cromlechs vary in size and in number, but Borlase records the fact that two of the largest, those of Zennor and Mulfra, are of the same size, and point in the same direction east and west. Numerous as are these monuments in Cornwall, they cannot be compared numerically with those in Ireland, where they abound in such profusion that we are told in one townland, that of Carrowmore, there still exist sixty circles and cromlechs, "the largest collection" says Dr. Petrie "of monuments of this kind in the British Isles, and probably, except Carnac, the most remarkable in the

\* See "British Barrows," by W. Greenwell, M.A., F.S.A. p. 6.

world.”\* Some of the Irish Cromlechs have been denominated primary, because the covering stone rests on the earth at one end and is supposed never to have been raised from the ground, the blocks of stone forming the covering being enormous; but others think that from the stones lying round, they were at one time of the free standing order, the supporting blocks having simply been displaced. These cromlechs are locally known as beds of Dermid and Graine (Dermot and Grace), and are said to number 366, and it is remarked that they are mostly found in pairs and on the sea coast. That they are sepulchral is certain, as under all which have been explored have been found chambers or kistvaens of different sizes containing either burnt bones in urns, or burials in a contracted position.

*Chambered Tumuli or Giants' Graves.*

Under the name of “Giants' Graves” must be included those great chambers generally covered with a vast mound of earth, of which many examples are found both in Cornwall and Ireland, and wherever found they are known by the same name, “Giants' Graves.” In construction they seem to resemble a series of cromlechs, but some, as those of Castle Euny in Cornwall and the gigantic and well known New Grange and Dowth in Ireland, assume the proportions of a dwelling for the living. I had the opportunity of visiting New Grange last year, under the able guidance of Mr. Wilde, and can say truly that the reality more than fulfilled the expectations I had formed of it. The stupendous mound of which the chamber itself occupies a very small portion, the circle of enormous blocks of stone surrounding it at equal distances, the great masses forming the entrance, sculptured with that spiral ornament supposed to be peculiar to the bronze age, fill the spectator with wonder at the labour necessary to rear so vast a monument. Creeping in on hands and knees, we find huge upright blocks varying in size from 2 feet to 7 feet in height, and from 2 feet to 3 feet 6 inches in breadth, lining the entrance passage on both sides, and gradually approaching each other, until at one point farther progress is a little difficult. This point past, the passage widens and rises, so that it is soon possible to stand, and you find yourself in a chamber nearly circular, with three side compartments, two of them containing large stone basins or dishes, on or under which I believe the bodies of the entombed were placed. The roof of this chamber is of the beehive construction, each stone overlapping that beneath, the centre being closed by a large flat stone 3 feet 10 inches by 3 feet 5 inches. But the chief interest is centred in the

\* “Ireland Past and Present.” Sir W. Wilde.

abundance of sculptures which cover many of the blocks, both at the entrance and in the interior, but placed apparently without border, and having no recognizable sequence.

At a recent meeting of the Institute, Mr. Lewis exhibited rubbings of some of these singular markings which from the position in which they are found were evidently sculptured before they were placed in their present position, and indeed indications are not wanting that some of the blocks are perhaps more profusely ornamented at the back which is covered by the earth, than on the side exposed to view.\* This has led some antiquaries to suppose that these sculptured stones originally belonged to some other building—perhaps the palace of some conquered king destroyed to form the tomb of the conqueror, a conjecture rendered more probable by the fact that huge blocks similar to those at the entrance appear to have been used in forming the foundation of the surrounding wall, several of them being exposed on the north side, whilst the wall itself although constructed without mortar, is far from Cyclopean in character. I could not ascertain whether these great supporting stones were sculptured, but if so, the figures may very probably be on the inside, as the builders of this great tomb seem either to have treated the sculptures with indifference, or to have held some superstitious views regarding them, which led them to look upon their presence as necessary, but their position as immaterial. With regard to the inscription which has been so often drawn, my own impression was that it had been added at a later date, but to this I hope to refer again.

Within a stone's throw of New Grange exists an ancient building which does not seem to have received the attention it deserves. Although from the use of mortar in its construction it is evidently of later date than the adjacent monument, it yet resembles it so much in general features as to strongly exemplify the belief that the tombs were reproductions of the houses of the living. The beehive roof with large wedge in the centre is, with that exception, the same; the great central room with smaller recesses are similar, but the huge blocks and sculptures of the tomb are wanting, and two or three peculiar shaped windows appear to have been pierced in the solid masonry, perhaps at a later period. I regret that time did not allow of my taking a sketch of this building, but I brought away a small portion of the mortar, which has been analysed by Mr. Charles Moore, of Bath, who looks upon it as of considerable antiquity, somewhat roughly welded together, the materials having been brought apparently from the sea-shore or the river.

\* See "*Archæologia*," vol. ii.

*Holed Stones.*

Passing now to the curious and enigmatical holed-stones so numerous in Cornwall, thirteen being enumerated by a local antiquary, Mr. Millett, of Bosavern, to whom I am much indebted, as known to him within the district already alluded to west of Penzance. Both holes and stones differ greatly in shape and size, the holes varying from one not larger than a half-crown to the Men-an-tol, the dimensions of which are given by Borlase as 1 foot 2 inches in diameter, and the size of which will be better understood if I say that I crept through it with ease. Local superstition still ascribes a curative property to this stone through which people creep for rheumatism. Whether this is a lingering reminiscence of a time when this stone held a place in the worship of Apollo or whatever may have been the designation of the ancient British God of healing, representing or represented by the sun, I know not, but the position of this stone and its two accompanying monoliths, is certainly suggestive of some such origin.

The stone is evidently placed with much care, looking north-east and south-west, and the pillar-stones stand to the right and left at equal distances as if to guide the eye in a particular direction in looking through the hole, which is also carefully bevilled on one side only, so as to make access easy on that side looking towards the south. It is true other stones lie about as though they might have formed some structure, but I could not make of them anything resembling a circle. I know of no other holed stone to be compared with this in Cornwall, but am told there is one near Chagford, in Devonshire, like it in the size of the aperture, and also in the two guardian or sentinel stones, standing in precisely similar positions, only in that the stone stands higher from the ground and therefore could not be so readily crept through as the Men-an-tol. I do not think it would be possible to pass even an infant through any other of the holed stones I have seen in Cornwall, and they must therefore have been designed for some other purpose. Borlase speaks of libations poured through holed-stones in Scotland, in honour of the spirit Brownie, who is supposed to be the guardian of bees, which are regarded with superstitious reverence both in Scotland and in Cornwall, but I never heard of libations being poured through these Cornish holed-stones, which with the exception of the Men-an-tol are regarded with the greatest indifference, and are frequently found built into walls and hedges, being unknown and unheeded; yet in the course of a morning's walk, Mr. Millett, of Bosavern, pointed out four to me, all differing in

size and form. They may of course have served some unknown domestic purpose, one very similar having been found at Twr, in Holyhead Island, forming one of the covering slabs of a drain; but since its use there is problematical, it is probable that it was simply used as being of convenient size and form, after the religious or domestic purpose for which it had been constructed was forgotten. Fergusson speaks of the oath of Odin taken in Scotland by joining hands through a holed-stone, and speaks of one in Stennis, but does not give the size and form of the hole. The only one figured in Stuart's splendid work of Scottish sculptured stones, is oblong and roughly cut, whereas all the perforations in Cornish stones are perfectly circular, and the holes appear to have been formed in a way peculiarly interesting, as resembling that adopted by the Swiss Lake dwellers—that is, a core was taken out instead of chipping away from the centre. I have seen two examples in which this process remains incomplete. In one, used in building a hedge, there is a perfect hole, whilst the circle only has been marked out for another of the same size close to it. A similar mode was evidently adopted in some of the crosses in which holes appear accompanied often by balls formed in the same manner.

Mr. Wakeman gives a drawing of a holed-stone from Devenish, but like those of Scotland, the Irish examples seem to have been differently constructed and not so neatly fashioned. Of it he says: "In this curious relic we find an example of the artificially perforated stones commonly called 'hole-stones' which are generally associated in Ireland with pre-historic remains, and are occasionally found in connection with our earliest, and only earliest, ecclesiastical establishments. What they were intended for no man can say. It is highly probable that they had their origin in days most remote, and that somehow or other, perhaps like the 'holy wells,' they became as it were pressed into association with Christian rites." He gives examples of these holed-stones as existing in Castledermot, county Kildare, Kilmalkedar, Kerry, Kilbarry on the Shannon, and at Devenish, Lough Erne, and says: "The virtue of the Kilmalkedar stone was some thirty years ago equal in repute to that of Stennis, and even in some respects superior; for it was further firmly believed by many of the old inhabitants of Kerry that persons afflicted with chronic rheumatism, falling sickness or other ills,\*

\* The superstitious belief in the cure of diseases, and especially of epilepsy, by these stones, would seem to denote some connection with those curious trepanned skulls of the neolithic age, so ably described by Dr. Broca, and of which so many examples exist in the Museum of the Anthropological Society in Paris. These holes Dr. Broca believes to have been made for the cure of epilepsy, and he shows that amulets taken from a skull thus trepanned were greatly esteemed as a potent spell against sickness or disease. It seems, therefore, far from impro-



might by passing three times round it (with faith, and by the offering of certain prayers) be restored to health."\* These holed-stones exist also in France, in Cyprus, and in India, where, Mr. Welford says, "devout people pass through them when the opening will admit, in order to be *regenerated*." If the hole be too small they put the hand or foot through it. Those familiar to us from drawings form the entrance to certain cromlechs, chiefly in the Kassia hills, and their use is supposed to be to allow of the passage of the soul of the deceased, probably in the form of a snake, as I suggested in a former paper; but the Cornish holed-stones are too small and too varied in form ever to have served as the door of a cromlech: they are usually oblong, slightly rounded at the upper corners, but often square, and in one instance round. Some antiquaries have suggested that as they are frequently found near circles, they may have been used for tying victims prior to their sacrifice, and the Irish MS. known as the Book of Leinster tells us that "Eochy the first Christian king of Leinster, having provoked the anger of Niall of the Nine Hostages, was taken by the latter monarch and chained to a stone. Eochy breaking the chain escaped."†

Before concluding this subject it may be well to point out the great similarity existing between two dolmens, figured by Fergusson: one at Plas Newydd, Wales, and one at Coorg. In both these instances, double holed-stones appear at the entrance to dolmens, but in both cases the holes assume the horseshoe shape, and the circle is not complete; a similar shape to this is seen in Swedish tombs.‡

### *Beehive Huts.*

Turning now to non-sepulchral pre-historic remains, we find in Cornwall numerous beehive structures attributed with reason to the early British inhabitants; these are generally found in clusters or villages surrounded by a wall. Most of these have been described by Mr. Wm. Copeland Borlase, but by the kind-

bable that a lingering belief in the efficacy of the holed skull may have attached itself to holes similarly made in stones looked upon as sacred. The hole in the skull was made for the escape of the troubled spirit; the hole in the tomb had the same signification; why, therefore, should not the spirit of disease be exorcised by being compelled to pass through a holed stone?

\* "Journal of Hist. and Archæo. Association of Ireland," 1874-75.

† "Guide to Belfast and adjacent Counties," p. 199.

‡ Since writing the above I have seen in the moat of the Castle of St. Germain, near Paris, removed I believe from Brittany, a holed stone strongly resembling the Men-an-tol (both in shape and size of aperture) which forms the entrance to an allée couverte or chambered tumulus, so that it is possible that the Men-an-tol may also have served the same purpose originally, the two pillar stones having been added at a later date for some religious or superstitious purpose.



ness of Mr. Millett, of Bosavern, whose name I have before mentioned, I was taken to a cluster not already known or described. This group is situated on a hill in the parish of St. Just, in Penwith, near to many of the "old men's workings" as they are called, and close by are ancient terraces, such as are found in many parts of Cornwall, and always near these clusters of huts, proving the dwellers therein to have been agriculturists. The walls of these huts are thick, and built of small unhewn stones placed carefully together without mortar, and at the entrance to each stand two pillars, perhaps originally capped by a stone lintel, but whether the structures were roofed with turf, or whether the beehive formation was carried out in its entirety and capped by a single stone, it is difficult now to decide. They appear to be identical in form and structure with the Irish cloughan which Sir Wm. Wilde describes as "a small circular domed or beehive-shaped dwelling, formed of overlapping stones, each row corbelled on the other, and having a low entrance not unlike the huts of the Greenlander and Esquimaux," and it may be added of the Kaffir races also, although the material used in their construction is different.

The Irish cloughans abound, we are told, in Kerry and Arran, and it would be interesting to know whether here also ancient agricultural terraces are to be found.

#### *Cliff Castles.*

The next class of monument to be noted is the Cliff Castles of Cornwall, as compared with the Irish rath. In both countries these remains are ascribed to the Danes, yet there are essential differences between them which would seem to militate against the probability of their being the work of one people. Almost every hill in Cornwall is crowned by one of these fortifications; the most perfect of those remaining, Chun and Castle an Dinas, show us two or three circles of loose stones piled together without being fitted or joined by cement, yet forming a strong cordon round the hill-top, where probably the chief and his followers had their huts, although all traces of them have long since disappeared. Whether these walls were ever of any considerable height it is hard to say, at present they would offer no great barrier to any determined body of men. The whole hill of Castle an Dinas, below the fort, is strewn with great boulders and loose stones, which may formerly have formed part of the walls; but if so it seems remarkable that the circles should be still so perfect without showing traces of greater elevation at certain points. At Treryn, which is on the coast, there are more evident traces of care in the arrangement of the stones, which, if

I mistake not, were joined together by earth or some sort of cement. The very small portion of the masonry remaining is on the landward side, so that the builders might well have been sea rovers defending themselves from enemies on shore; but it seems unreasonable to suppose that they could construct works of such magnitude as the Cliff Castles in the midst of an enemy's country, the quantity of stones required being enormous, and some of them of great size; and I believe similar works are found in Wales and Scotland, and other places where Danes have never been. The Irish raths appear to differ in many respects from the Cornish Cliff Castles inasmuch as they are usually gigantic earthworks only, not always surrounding a hill-top, but generally enclosing a series of subterranean chambers, used either as dwellings or granaries. Caves of a similar character are found in Cornwall, but not, so far as I know, in connection with the Hill Castles; the only one of which resembling an Irish rath is thus described: "Bartiné Hill is one of a chain of eminences near the Land's End, which command extensive views over the English and Irish Channels. On its summit is an ancient earthwork consisting of a circular mound or vallum slightly elevated above the natural soil, and a ditch."\* The Cornish Hill Castles seem to me to resemble more nearly the Irish Cashels, which Mr. Gray, of Belfast, describes in a letter to me as circular raths, but formed of stone, the walls being sometimes 12 feet thick and 9 feet high, containing generally chambers within the thickness of the wall; the masonry, however, of the Cornish Castles seems ruder than that of the Irish Cashels, and I have never heard of any chambers within them.

#### *Crosses.*

Of the crosses, so numerous both in Ireland and Cornwall, I have not time to say much; their general resemblance is too striking to escape observation, but it appears to me that the Cornish examples are generally ruder than the Irish, and I do not think that the short round crosses without shafts, so common in Cornwall, are to be found in Ireland, although some very rude short Latin crosses are figured in the "Guide to Belfast;" and I may remark that the peculiar figure so often found on these crosses, and so authoritatively pronounced to be decisive of their Christian origin, is given in the "Handbook of Archaeology," as found upon ancient boundary stones.

Of the mysterious Round Towers of Ireland, no trace is found in Cornwall, the supposed resemblance to them in Launceston

\* 'On Cornish Hill Castles,' by W. Cotton, Esq., M.A. "Archæologia," vol. xxii, pp. 300-6.

Castle having been satisfactorily disproved, and their absence is the more remarkable and significant, when we remember that the early Irish saints are very largely associated by tradition with the conversion to Christianity, of the inhabitants of Cornwall; so that if we are to accept Dr. Petrie's theory of the Christian origin of these enigmatical monuments, their absence from a country in other respects so nearly associated with Ireland is certainly strange. As far as I am aware there is also an entire absence in Cornwall of the stones bearing Oghams, so frequently found in Ireland. As I have before remarked, the menhirs of Cornwall are rough and entirely unsculptured, with the exception of three, which bear inscriptions in Roman characters, and one in St. Hilary churchyard, upon which are some singular markings set down as masonic signs, with *noti noti* under them in Roman letters. Upon some of the crosses also are found peculiar signs of which no explanation can be given, although doubtless they had a meaning at the time these monuments were erected. There is one proof of the intercourse which formerly subsisted between Cornwall and Ireland, which must not be omitted, which is the discovery near Penzance of one of those peculiar crescent-like ornaments of gold, of which so many exist in the Royal Irish Academy; this is figured in Lysons' "History of Cornwall," and will be found to be identical with the Irish examples.

All the monuments of which I have been treating are generally classed together as Celtic, but it seems to me scarcely possible to ascribe them all to one race, and some of them doubtless appear in countries to which the Celts were strangers. There is sorely needed, in the interests of Ethnology and Archaeology, a map of the world, giving the distribution of these several monuments. That they should be mixed in inextricable confusion in Great Britain and Ireland is not surprising, seeing the numerous races who have from time to time overrun the land: but if we can trace them to countries where they become separated, following the wanderings of certain peoples, a clear gain to the science of anthropology will result. A map of this kind is given in the *Compte Rendu* of the International Congress at Stockholm, 1874, representing the sepulchral remains of the polished stone age in Sweden, and by it we see at a glance that while the whole east coast of Sweden is quite free of these monuments, they exist in great numbers on the west and south coasts, and advance nearly to the centre of the land, but they are found almost entirely in separate groups, which rarely intermingle; thus the chambered tumuli are found massed together between Lakes Wenner and Wetter, a few being scattered on the south coast, and two only on the west, where as in the

south, dolmens without galleries, or cromlechs predominate largely. Between these two groups, but extending farther to the north, we find a great number of cists *not* covered with tumuli, and a few covered either with tumuli or cairns.

One lesson to be learnt by this distribution, and especially by their admixture on the south-west coast, would seem to be that they may be traced to a succession of emigrants arriving by sea, and subsequently finding their way to different parts of the country. A similar distribution is indicated in Scotland by Stuart's map of the sculptured stones depicted by him. They are all found on the eastern coast and not far inland, except a few near the Clyde and on Solway Frith. Probably in Ireland also the various nationalities which have helped to form the present Irish may in like manner be traced in a measure by the distribution of their monuments. Thus Sir William Wilde says: "The great cromlechs scattered by hundreds over the land are still chiefly to be found on the *coast*," denoting their introduction by a sea-faring race; and if we follow these monuments to the East, from whence undoubtedly they first came, we find them existing in great numbers and often in close proximity to each other, yet always with a certain line of demarcation between them. In Canon Tristram's "Land of Moab," this is very clearly shown. He says: "It is worthy of notice that the three classes of primeval monuments in Moab, the stone circles, dolmens, and cairns, exist each in great abundance in three different parts of the country, but never side by side, the cairns being found exclusively on the east, on the spurs of the Arabian range, the stone circles south of the Callirrhoe, and the dolmens north of that valley; one cairn only surrounded by a circle of dolmens is found on the north-west;" and he adds: "This fact would seem to indicate three neighbouring tribes, co-existent in the pre-historic period, each with distinct funeral or religious customs."

Fergusson,\* speaking of the distribution of these monuments (dolmens) in India, says: "They do not exist in the valley of the Ganges or any of its tributaries, nor in the valley of the Nerbudda, nor in fact in that part of India described as north of the Vindhya range of hills; they exist, though somewhat sparsely, in the country drained by the Godavery and its affluents, they are more common in the valleys of the Kistnah, also on both sides of the Ghats down to Cape Comorin, and in groups all over the Madras presidency." General Lane Fox says: "The geographical distribution of megalithic monuments is continuous or nearly so, extending from the Kassias in the north-east of India, to Central India, Persia, Asia Minor, the Crimea, along the north

\* "Rude Stone Monuments," chap. xiii.

coast of Africa, bordering the Mediterranean.\* They are found in Etruria, up the south and west coast of France into Britain, and as far as Denmark and Sweden. In so far as our present knowledge goes they were unknown in Russia proper, in Northern Asia, in Central and South Africa, and in America, except Peru.† Nevertheless it seems evident that although megalithic monuments exist in all these countries, they are yet found in groups suggestive of a difference in race and of time in their several builders. Under the convenient appellation of Celts many distinct peoples seem included; Sir William Wilde recognises a long-headed Celtic race, with whom he classes the Firlbolgs of early Irish historians, and a round-headed people of the same race, whom he looks upon as Tuatha de Dannans; and after describing the first race as peculiarly long-headed with projecting jaws and probably dark hair, with blue eyes like the Irish Celt of the present day, he goes on to speak of an interment in a kistvaen under a cromlech, in which the body was found in a crouching attitude, the head being round, "an intellectual refined specimen such as the finest Caucasian." Yet both these he looks upon as belonging to separate branches of the same Celtic or Scythic race, coming successively from the East, both having the same Druidic faith; similar superstitions and burial rites, and both, when they come in contact with each other in the famous battle of Moytura, as possessed of metallic weapons.‡ Craniologists would certainly not allow that skulls differing so widely as those described could belong to the same race; and thus it appears to me that a systematic examination of Irish monuments might lead to the discovery of some interesting ethnological facts. It is at all events worthy of remark that those who now in India build cromlechs, erect pillars and circles of stones, and construct miniature kistvaens are not the dominant Aryan race, but the dark skinned aborigines, descendants of the pre-Aryan occupiers of the soil, and that in every country westward, wherein these monuments are found, they are traditionally associated with a long forgotten race. It is remarkable too that some are assigned to giants and some to dwarfs. Sir William Wilde points out that every green-rath in

\* MM. Tiasot and Broca, in describing the megalithic monuments of Morocco, clearly point out the distinct groupings of the several varieties of these monuments, the dolmens being found near the coast, but never passing a certain line, being then succeeded by tumuli, some of which, surrounded by menhirs or circles, seem almost to rival New Grange. Farther south, again, appear menhirs and circles; but these are nowhere intermingled, one only occasionally appearing as an intruder among tumuli or dolmens.

† "Anthropological Journal," 1875.

‡ See "Ireland Past and Present;" also "Lough Corrib and the Boyne." By Sir W. Wilde.



Ireland is consecrated to the fairies or "good people," whilst the remains attributed to the giants are of a different character and probably of a later date.\*

In Cornwall the traditions of "giants" are numerous, and represent probably the oldest population; these are however associated with natural phenomena, as the raising of sandbanks, the deposition of rocks, &c., but not with the abundant megalithic structures, except those which in all countries go by the name of "giants' graves or beds." The legends which make the circles metamorphosed human beings, and which are common also in England, are the only ones found in Cornwall, except in the one instance before mentioned, in which tradition speaks of a battle at Rosemoddress and Boleit, and affirms that "the Pipers" which have been proved to be non-sepulchral, represent the positions of the chieftains who are said to have been Howel and Athelstane.†

The position of these monuments is not always carefully noted by their explorers, but in the great majority observed it is marked as south-east, sometimes due east and sometimes south, whilst at Stonehenge and the Men-an-tol the monuments face north-east and south-west. If, as has been asserted, Stonehenge is so placed as to catch the earliest sunbeam on the longest day, I think the Men-an-tol might be designed to watch the setting of the same luminary on the shortest day; it seems however to me probable that the position of these monuments, especially those which are sepulchral, has some reference to the point from which their builders came, either as emigrants or conquerors—an idea which suggested itself forcibly to my mind in examining the representations of the American mounds, where some of the images are reversed, evidently with some design of showing the locality of the chieftain owning the totem represented, and I believe that this mode of representing the tribal marks of chieftains on their monuments may serve also as a clue to the interpretation of those apparently confused hieroglyphs found upon the Scotch and Irish monuments, the total absence of which, in the Cornish monuments, is a fact full of significance.

Mr. Bonwick, speaking of the burial customs of the Tasmanians, says: "In Oyster Bay, on the eastern side, Piron found bones and cinders in the grass of a mound. On the bark covering it," he says, "they had deeply engraved some characters analogous to those which the natives employed in the tattooing of their arms;" thus I believe that in like manner the markings at Dowth, New Grange, &c., may be traced to the tattoo or

\* "Lough Corrib."

† See "*Nenia Cornubiæ*." W. C. Borlase.



tribal marks of the Picts, or analogous tribes, although it must be observed that the engravers of the symbols were very evidently not the constructors of those great monuments, since it has been proved, as before stated, that the stones were certainly engraved prior to being placed in their present position, and probably formed part of a previous erection, the same having been observed also at Carnac.

With regard to the cromlechs, notwithstanding a certain resemblance observable everywhere, there are varieties which seem to point to their construction by different branches of the same race. In Ireland the prevailing type appears to be a gigantic block of stone raised from the ground on one side only; but this is rare, if not unknown, in Cornwall, where, however, the number of stones comprising the monument vary, whereas in India four stones, one perforated, forming a square vault, capped with a single large stone, is the rule, and this form is found in Kits Coty House. But in Moab, Canon Tristram tells us that without exception every cromlech consists of four stones only, three supports and one covering stone, and this form, which with the former is absent in Cornwall, is seen in the cromlech called the "Spinsters' Rock" at Drewsteignton, Devon; and the legend accompanying this monument—that it was erected by three sisters before breakfast in memory of, *I think*, their father or lover of one of them—has in it some apparent reference to the Fates, either Scandinavian or classical.

One other point I would wish to call attention to, and that is the frequent recurrence of these monuments in boggy or waste land. Of course it may be said that this proves them to have been erected by a conquered people driven for shelter to waste lands, but I do not think conquered fugitives would be able to find time and strength to erect these vast structures, especially when we remember that in most cases the stones composing them were brought from great distances. And I think the selection of these spots either prove their builders to have been an agricultural people who would not willingly waste profitable land, or that a considerable change has taken place in the surface of the country since their erection. That bogs have considerably increased in Ireland since its occupation by man is attested by the log hut found 14 feet below the surface in County Donegal, and that they have encroached in like manner in Cornwall is evident from the trunks of trees found 12 feet deep under Bostrage Moor, but in the latter county they do not appear to have increased to any great extent since the erection of these monuments, and the dwellings and cromlechs are often found on high ground, whilst all I saw in Devonshire are in swampy ground. This may perhaps have been for the convenience of a contiguity

to the mines worked in remote times, unless it arose from a fondness for low damp spots, in survival of the lake-dwelling stage through which they had passed. Lake dwellings are common in Ireland and are known to have been in use up to a comparatively recent period, but they are wanting in Cornwall, perhaps for the excellent reason that lakes also are wanting, or are at least too small to be thus utilized; there is, however, a tradition of Gwavas Lake, which formerly occupied a portion of what is now Mount's Bay, and on that spot are found traces of a supposed submerged forest. From the frequent discovery of hazel nuts there, this may possibly be found to have been a lake settlement.

In treating of the monuments of a country it is advisable not to ignore local legends, since in the midst of much that is wild and improbable there is generally to be found a grain of truth. Much has been written upon the supposed presence of Jews in Cornwall, and the legend is generally disbelieved; but if we substitute for Jew, a foreigner of Eastern, non-Aryan origin, we shall probably find evidence of the truth of the story. In the old men's workings and Jews' houses, as they are called, have been found many objects of undoubted Eastern origin, among which may be especially noticed a bronze bull found at St. Just, similar to one discovered in Babylon, and almost identical with several Egyptian bronzes of larger size in the Louvre. This bull is figured in Mr. Borlase's "*Nænia Cornubiæ*," and there can, I think, be no question of its Egyptian or Phœnician origin. Considering the intercourse which undoubtedly existed in very early times between the Phœnicians and the Cornish peninsula, the relics found are not so numerous as might have been expected; much, doubtless, has been destroyed, and much remains to be discovered. The richness of Cornwall in pre-historic remains is well known, but great numbers have perished even recently. Mr. Millett, of Bosavern, pointed out to me a field where a few years ago the farmer destroyed a large piece of pavement, which he believed had served as a place of cremation, many urns having been found in an adjoining road and which had been likewise destroyed. I am not aware that any Phœnician inscriptions have been met with in Cornwall, although there appears to me a semblance of letters upon one of the urns figured by Mr. Borlase, and a block of tin in the Penzance Museum, found in a "Jew's house," bears letters, but from the supposed cross upon it, it has been referred to Christian times.

Irish traditions are far more copious than those of Cornwall, and give to Irish history a very respectable antiquity. Legendary lore traces the origin of the Irish people first to a Greek or Scythic colony under Partholane, who conquered the aborigines,

but died, with all his followers, of pestilence. To him, after thirty years, succeeded Nemedius with another colony and yet another, denominated Firlbolgs, identified with the Belgæ. Then comes Heremon with some Milesians, who defeats the Damnonians, and gives Connaught to the Belgæ, for their assistance. "In a short time after this settlement," says Warner, "as it is related in the psalter of Cashel, the Picts of Thrace landed with some forces on the eastern coast of Ireland." These Picts, who are reported as having first passed through France, and built the city of Pictavium, were called upon to repel an invasion of the Britons, which they did, but upon seizing Leinster were driven out by Heremon, and settled in the Hebrides and north of Scotland, whilst six of their Druids, for services rendered, were granted estates in Ireland. In addition to these Eastern or Scythic tribes we get the Fomorians, said to be African pirates, and the Tuatha de Dannans, reputed Scythians like the Belgæ, but more advanced in civilization and particularly skilled in the arts of divination; and between the two latter tribes was fought the famous battle of Moytura. That these varied nationalities, if their inroads could be accepted as historical, would be sufficient to account for the various pre-historic monuments of Ireland, there can be no doubt, and the earlier historians evidently considered that a certain amount of truth might be found in the legends. Keating gives a map marking the lines of migration from the neighbourhood of the Euxine, one by way of the Mediterranean and one through the European Continent. That these migrations are not wholly hypothetical I think is attested not only by the megalithic and architectural monuments, but by the various ornaments from time to time discovered. Few can enter the Gold Room at the Royal Irish Academy without being forcibly reminded of Dr. Schliemann's discoveries at Hissarlik and Mycenæ, while the Irish brooch is nearly related to those found in Algeria and other parts of North Africa. The Cells and Round Towers carry one's thoughts to Etruria and Sardinia and the East, whilst singularly enough the markings at New Grange, Lough Crewe, and, if I mistake not, those in the north of Scotland also, have their nearest affinities, not with Egypt and Phœnicia direct, but with the alphabets of these countries as modified in Cyprus according to the discoveries of General de Cesnola. I cannot pretend to do more than advance a theory, but it seems to me that assuming a grain of truth to be contained in the legend which brings the Picts from Thrace, that it is to these people we must ascribe the sculptured rocks in various parts of France, Ireland, and Scotland, representing as I believe the tribal tattoo or pictorial marks for which this race was famous. It would of course be a clear gain to ethno-

logy to trace any one of the numerous classes of pre-historic remains to their source, but before that can be done they require to be arranged and classified more exactly, and the countries wherein they are supposed to have originated must be more thoroughly and scientifically explored.

## DISCUSSION.

MR. HYDE CLARKE, in proposing a vote of thanks to Miss Buckland, said she had usefully enforced a valuable principle in archæology, that tombs represent the dwellings of the living. Burial under the hearth gave the example for several of the other forms. He could not but repeat that in examining our own archæology the early history of other European countries was lost sight of, and we attempted to explain races and monuments by too few migrations. We placed undue weight on certain theories. The Phœnicians were made all-sufficient when the Etruscans as a maritime power were more likely to have preceded them, if, indeed, Phœnicians ever came here. The Aryan occupation had received too little attention and the supposed Basque (Iberian) too much."

MR. LEWIS said that he thought holed stones were generally connected with the idea of the new birth, which seemed to be the view of the French author quoted by Miss Buckland. At "King Orry's Grave," in the Isle of Man, two stones, shaped so as to make a circular opening, formed a division between two chambers, and he believed a similar instance occurred in Sweden. He understood Miss Buckland to draw a racial distinction between those who built circular fortifications of stone and those who built circular fortifications of earth, but he thought the building material depended on the nature of the country, and just round Chun Castle there was nothing but stone. At "Grimspound," on Dartmoor, there was a stone wall enclosing some hut circles, which was not on a hill but in a valley between two tors. He thought it quite as likely that the Cornish christianised the Irish as that the Irish converted the Cornishmen—in the former case Miss Buckland's difficulty about the Round Towers would be solved. He did not think that the fact of stones having been engraved before being placed in position, showed necessarily that they had been used for other purposes previously. The fact stated by Miss Buckland that rude stone monuments in Sweden were principally found on the west coast, seemed to show that their builders came from the west and not from the east. The Orientation of rude stone monuments was beyond doubt a most important point; he had found in the circles he had seen a reference of some kind to the north-east, which in various papers he had endeavoured to connect with sun-worship, and he believed that to have been the primary object of the circles, although burials were made in them as in our own churches, we having probably derived the custom of burying in churches from our ancestors of the rude stone monument period, the custom being

at least not to be traced to any other source. The sepulchral dolmens and chambers on the other hand had, according to his experience, their entrances somewhere between east and south as a rule, their length running consequently towards the north-west. The "Spinster Stone" had been restored, and there were formerly remains in connection with it which no longer existed, so that it was not safe to found any argument upon it. He did not think that Kit's Coty House had formed part of any chamber or had materially differed from its present condition.

Colonel GODWIN AUSTEN remarked that such monuments as those referred to in the paper were fast disappearing, even in the East, so that any one who would take the trouble to record accurately their size and position, and make plans and drawings of them, was carrying on most excellent work, and this Miss Buckland had been doing. In the Khasi Hills, where similar monuments cover the whole country, numbers had been wantonly destroyed by the soldiery and alien natives or used for buildings. Miss Buckland had noted the fact that dolmens and cairns were generally found in separate areas, not mixed. Such was the case in the Khasi Hills: cairns were common on the northern side of the plateau but none were to be seen on the south some 40 miles off.

MISS BUCKLAND, in reply to Mr. Lewis, observed that although not well acquainted with fortifications there appeared to her to be a decided difference between the Cornish Cliff Castles and the Irish raths, as the former invariably encircle the hill-tops, are constructed of loose uncemented stones in two or more circles, and contain in the centre traces of enclosures, probably for cattle, and for the dwellings of the soldiery or tribe, but no underground caves; whereas Irish raths are frequently found in low situations, consist of earthworks only, and almost always contain underground caverns and passages, either for granaries or places of security.

A communication was laid before the Institute by C. PROUNDES, Esq., entitled "Some Facts about Japan and its People." The Author's observations were illustrated by an interesting collection of plans and drawings.

JUNE 24TH, 1879.

JOHN EVANS, Esq., D.C.L., F.R.S., *Vice-President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

The Election of the following new Members was reported:—  
F. DUCANE GODWIN, Esq., F.R.S., F.Z.S., Chandos Street; and  
PERCY C. WHEELER, Esq., of the Bengal Civil Service.

The following presents were announced, and thanks were ordered to be returned to the respective donors:—



## FOR THE LIBRARY.

- From the SOCIETY.—Proceedings of the Asiatic Society of Bengal. Nos. 9 and 10, 1878, and No. 1, 1879.
- From the AUTHOR.—Armi ed utensili in pietra della troade. By Dr. G. Nicolucci.
- From the AUTHOR.—The Serjeants and their Inns. By E. W. Brabrook, F.S.A.
- From the ASSOCIATION.—Report of the British Association for 1878.
- From the SOCIETY.—Jahrbuch der K. K. Geologischen Reichsanstalt. Vol. XXVIII, No. 4.
- From the SOCIETY.—Verhandlungen der K. K. Geologischen Reichsanstalt. Nos. 14 to 18.
- From the SOCIETY.—Mittheilungen der Anthropologischen Gesellschaft in Wien. Band VIII, Nos. 10-12.
- From the INSTITUTE.—Proceedings of the Canadian Institute. Vol. I, Part 1, New Series.
- From the ACADEMY.—Atti della R. Accademia dei Lincei. Vol. II, No. 5.
- From the EDITOR.—Revue Scientifique, Nos. 50 and 51.
- From the EDITOR.—Revue Internationale des Sciences, No. 6, 1879.
- From the SOCIETY.—Bulletin de la Société d'Anthropologie de Paris. Vol. II (3rd series) 1879.
- From the MUSEUM.—Report of the Peabody Museum. Vols. I and II.
- From the EDITOR.—Matériaux pour l'histoire de l'homme. Vol. X, Nos. 2 and 3.

Professor W. H. FLOWER, F.R.S., read a paper "On the Osteology and Affinities of the Natives of the Andaman Islands."

The following papers were also read:—"Palæolithic Implements from the Valley of the Brent." By WORTHINGTON G. SMITH, Esq. "Portstewart, and other Flint Factories in the North of Ireland." By W. J. KNOWLES, Esq.

## GAELIC MYTHOLOGY. By HECTOR MACLEAN, Esq.

IN Gaelic mythical tales and ballads, the most of the names of the heroes and heroines, as in the case of names of the same kind in the myths of other Aryan peoples, are such as may be traced to roots denoting the elements and powers of nature, namely: fire, light, sun, moon, stars, day, night, darkness, cloud, thunder, lightning, earth, sky and wind. The most conspicuous of those stories and poems are such as recount the exploits, fights, victories, and adventures of a race of giants called the *Feinn* or *Fianna*, inhabiting Ireland and the Scottish Islands at a remote period. The ruling tribes among the Irish and Scottish

\* See pp. 108-136.



Islanders of olden times claimed descent from those supernatural heroes, as the Greeks and Romans did theirs from their own fabulous gods and demi-gods. The Campbells are called in Gaelic *Duibhnich* and *Sliochd Dhiarmaid O Duibhne*, "the descendants of *Diarmaid O Duibhne*," who is assigned to them as ancestor by the traditions of the Gaels. Diarmaid was the nephew of Fionn MacCumhaill, the lord or king of the Fianna, and was wounded in the sole of his foot by one of the venomous bristles of a boar, which he hunted and killed, as he measured his length from the tail to the snout, in accordance with his uncle Fionn's strict injunction, who wished to compass his death in revenge for Diarmaid's elopement with Graine, Fionn's betrothed wife. Diarmaid died of the wound; and, although according to the ballad that relates Diarmaid's death, it was in his uncle's power to heal him, and he had promised to do it, yet, although repeatedly entreated by Diarmaid, who enumerated the numerous services he had performed for Fionn, the latter declined. Highland traditional story tells us that it is in commemoration of the killing of the venomous boar by Diarmaid that the chief of the Campbells, the Duke of Argyll, has a boar's head for his crest. The first Gaelic book printed, a translation of "John Knox's Liturgy," by Mr. John Carswell, Bishop of the Isles, published in Edinburgh in the year 1567, is dedicated to the Earl of Argyll, whom the translator addresses "do ghiollaasbuig uanduibhne Iarlla Earra gaoidheal, agas tighearna Ladharna," to *Archibald O Duibhne, Earl of Argyll and Lord of Lorne*. This fact illustrates well how much traditional national myths were interwoven with the political and social institutions of the Scottish Gaels.

The belief in the animation of inorganic nature still lingers in several parts of the Highlands, as well as the belief in fairies, ghosts, metamorphoses, and sorcery. Every hill, knoll, valley, dell, wood, river, lake, brook, well, bay, or rock seems to have had its spirit; and sea, sky, winds, and clouds were imagined to be endued with a certain amount of consciousness, at a period not very remote from our own day in this part of Great Britain. In Campbell's "Popular Tales of the West Highlands," vol. ii, p. 37, we find a short story that recounts how one of four men in the Island of Barra, who were watching cattle, struck a dog that they saw, although cautioned by his companions, and immediately lost the power of his hand and arm. He consulted an old woman who had some knowledge of those matters, and she told him that there was no remedy to be had for a year and a day; but, at the end of that time to go to the knoll, where he struck the dog, and say to it "If thou dost not let with me the strength of my hand, I or my race will leave neither stick nor

stone of thee that we will not drive to pieces." At the end of the stated time he did as the old woman directed him to do and so recovered the power of his hand and arm. This story is followed by another, which tells how a woman went to a knoll for shelter and began to fix in it the tether-peg of the tether of two calves of hers, when the knoll opened and a woman put out her head and all above the middle, and rebuked her for what she was doing. The owner of the calves apologised and pleaded weakness and poverty as an excuse. The inhabitant of the knoll directed her where to feed her calves and told her that if she acted as she was bidden she should not be a day without a cow as long as she lived. She took the advice of the woman of the knoll, and was never thereafter without a milk cow. These and many other such stories were related in Barra, Uist, and several other districts in the Highlands, in the year 1859 and subsequently by men and women who believed in them, who could neither read nor write, and could speak no other language than Gaelic.

Many phrases still live in Gaelic in which the seasons, the weather, and the various powers of nature are spoken of as living persons. The cold weather of winter is spoken of as a hag or old woman, who prevents the grass from springing up by beating it down with a large mallet. This mallet she throws away on the 1st of February, St. Bridget's day. After the 15th of February come the "three days of the beaked female;" these are followed by the "three days of the whistling female;" the three days of the lame, white work-horse succeed these; lastly, the "three days of the sweeping female. Up with the spring!" The "carrying south of the year" is mentioned in a Gaelic poem: the last fortnight of summer and the first of autumn are named "The Keys;" the former locks summer and the latter unlocks autumn. Gaelic myths, evidently then, like other Aryan myths, were evolved from animism and metaphorical expressions to a considerable extent, as the preceding instances, quoted from a multitude, would seem to show clearly: personifications of physical powers, and a belief in their being animated.

Mr. G. W. Cox in his "*Aryan Mythology*," has compared several of the stories in Mr. J. F. Campbell's "*West Highland Tales*," with Hindoo, Greek, Latin, and Teutonic myths; and has identified two of their heroes, Diarmaid and Conall Gulban with the sun; two of their heroines, the daughter of the king of the kingdom under the "Waves" and "Breast of Light" with the dawn; and a third of their heroes, the one-eyed Smith, Lon MacLiobhann, with the thunder-cloud. In this collection of Highland stories are to be found tales and ballads that recount

the adventures of some of the other heroes of the Feinn, such as Fionn, Osgar, Goll, Oisean, and Caoilte. A collection of poems relating the battles, quarrels, and hunts of these giants was made by Dean McGregor, of Lismore in Scotland, in the year 1512. This collection was translated into English by the Rev. Dr. Thomas McLauchlan, of Edinburgh, and was published with the translation in Edinburgh in 1862. Several other collections of such poems were made at successive periods subsequent to the time of the Dean, the most of which, along with a collection of his own, made orally in the Highlands were published in London in 1872 by Mr. J. F. Campbell, editor and translator of the West Highland tales already referred to. This work is entitled "Leabhar na Feinne" or "Heroic Gaelic Ballads." Mr. Campbell meant to follow this volume by one of translations, which has not yet, however, appeared. Stories and ballads of which the Feinn are the subject, are found in Irish writings as early as the eleventh century. Irish chroniclers have converted this mythical people into a militia raised to defend Ireland against foreign invasion. The births, deaths, and exploits of those fabulous heroes are narrated with as much precision in regard to day and date as the reign of Brian Boroimhe, and the battle of Clontarf. Tradition and writing hand down to us two sets of parallel stories of a kindred nature respecting them. The traditional tales and ballads which have not been modified by the historians of the Middle Ages are, as might be expected, more mythical and less historical in character. The ballads are but prose narratives abridged and versified.

The geography of the stories of the Feinn is remarkably limited in the more primitive of them. The regions mentioned in such are usually four: *Eirinn*, *Tír-Shóir*, *Sorchir* or *Sorcha*, and *Lochlan*. These names are transparent and explain themselves. *Eirinn*, the oldest form of which is *Eriu*, denotes the land of the west, Ireland, and is named in one of the ballads in the Dean of Lismore's book, "fodleith earra in doythín," "the western land of the world." *Fodla*, which means "land or country," from *fód* "soil," is a name for Ireland. *Sorcha* signifies "light," and is traceable to the same root as that from which the Latin *Sol* and the Sanskrit *Sārya*, the sun, come. *Sorchir* found in the Dean of Lismore's book when translated into the orthography of Irish and modern Scotch Gaelic, is *Sorcha-thír*, "land of light." When *Sorcha* had become obsolete as a name for "light," *thír* "land," pronounced nearly *heer*, was dropped from *Sorcha-thír*, and hence we find *Sorcha* substituted for it in the greater number of the ballads and tales. This name would appear to have denoted, in ancient times among the Gaels, all the countries to the south-east, south, and south-

west of their own country, and to have become restricted in meaning in proportion to the increase of geographical knowledge among this people, until ultimately it became a name for Portugal, and it has now ceased to be a name for any country. It was originally, in fact, the land which corresponded to the daily apparent course of the sun, southward, from east to west. *Tir-shoir* signifies "east land," and was used in contrast with *Eirinn*, "west land;" another form of the name is *Airthir*. *Oir* and *soir* both mean "east." The name of Argyll, in Gaelic *Earra-Ghaidheal*, denotes "east land of the Gaels." This name is a corruption of *Oirthir Ghaidheal*, and the part of the highlands so called included at one time the present counties of Argyll, Inverness, and Ross. It was so named in contrast to the Hebrides, which in ancient times were considered by the inhabitants part of *Eirinn* or west land; and hence Ptolemy describes them as part of Ireland. The *Eirinn* of the myths of the Feinn would appear evidently to have comprehended the West Highlands; and in a letter to Henry VIII of England from a Highlander, the latter tells the English King that the Highlands were called *Eirinn bheag*, "Little Ireland."

*Lochlan* denotes now Norway and Denmark; but in olden times it was a name for the whole of Scandinavia and Germany. As *Sorcha* or *Sorcha-thir* was an old Gaelic name for the land of the south, so *Lochlan* was the corresponding name for the land of the north. It comes from *loch* "black," and *lan* or *lann*, "enclosure, land, house," and so signifies "dark land," the land that the sun was supposed by the old Gaels never to visit,—the land of frost, snow, cold, and darkness.

In Campbell's "Heroic Gaelic Ballads," there are eight variants of the ballad "Dyr borb" (Fierce Dyr) in the Dean of Lismore's book. In four of these we find *Iarsmaile* (Jerusalem), *Hespainte* (Spain), *Eispainte* (Spain), and *Greiga* (Greece), replacing the *Sorchir* of the Dean's Book and the *Sorcha* of the other variants. As regards *Lochlan*, variants of ballads and tales point to its gradual subdivision into several countries. A ballad that recounts a battle fought between the Feinn and the whole world in arms, in which the former were victorious, mentions *Daor Done* (Brown Daor) as King of *Lochlan* in one verse, and as king of the world in another. Of all the countries of the world, only *Lochlan*, France, Greece, and parts of Ireland are named. Fairstrand, the place where the battle is said to have been fought, might have been one of numerous places on the shores of Ireland and Scotland, but was more probably a place in Cloudland. Ossin, the mythical bard, the son of Fyn MacCoul, sings the ballad to St. Patrick, but assigns no date to an event of such importance to his father and people. The Irish have localised

the place at Ventry Harbour; and Ventry means Fairstrand, while the inhabitants of the island of Islay, in Scotland, tell us that it is a strand so called on the north-west of their own island. In his "Heroic Gaelic Ballads," vol. i., p. 137, Mr. Campbell, referring to Mr. John Hawkins Simpson's translation of an Irish variant of this ballad and of a tale treating of the same subject, remarks of the tale: "Then follows a good English version of an exceedingly wild, extravagant prose story, which has the marks of old manuscript tales. All the kings known to the composer of the story, including the kings of India and France and the Emperor of the World, invade Ireland. Fionn beats them in Homeric single combats." *Righ Teurmann*, "King of Germany," is found among the allies of the King of Lochlan, in another ballad. In an Irish story, which relates how a Norwegian king came to the island of Rathlin with a large fleet to carry off a beautiful lady for wife by force, but was defeated and slain, Norway is called Huardha. These instances show how a name that, in ancient times, denoted the whole known and unknown northern world, has now become the Gaelic equivalent for Denmark; and *Tír-Shoir*, Eastland, recedes from Ireland to India in the ballad of the Battle of Gabhra, in which "Oskir," Ossin's son, was killed.

The battles between the Feinn and the Lochlaners cannot be identified with any battles fought between the Scandinavians and the Irish and Scotch Gaels. Very few of the names of the Lochlan heroes, mentioned in traditional story as having warred with the Feinn, are Scandinavian; they are mostly all Gaelic, such as *Gorm-Shuil*, "Blue-eye," *Ceothach*, "Misty," *Lamhnambéud*, "Hand of the Hurts," and *Lamhfhad*, "Long hand." The names of the Scandinavians of History, who invaded the Highlands and Ireland in the eighth century, became Highland and Irish personal names and surnames, all of which bespeak their Norse lineage: such as Torcall (Torquill), Tormaid (Thormond), Iomhar (Ivor), Raghnaill (Raginhild). Tormaid, Ionhar, and Somhairle are Anglicised Norman, Edward and Samuel, and Raonailt (Raginhilda), a woman's name, is Anglicised Rachel. The *Lochlannairch* of history, the Scandinavians, are known by two other names: *Gentti*, "Gentiles," and *Gaill*, "strangers." The Norwegians are called *Fionn-Ghaill*, "White strangers" and the Danes, *Dubh-Ghaill*, "Black strangers"—figurative expressions which signify the nearer or more known, and the more remote or less known foreigners. These historical Lochlaners or Norsemen not only introduced personal names and surnames among Highland and Irish tribes, but also local names into Irish and Highland territory,



which, at this day, notwithstanding the change they have undergone, leave no doubt as regards their Norse origin; while hardly any of the topographical names that occur in the Feinn stories are Norse, excepting, perhaps, Beirbhe and Spaoili, which are very probably Gaelicised forms of Bergen and Upsala. No old Gaelic song or ballad commemorates the exploits of Robert Bruce, although a large Highland force was present at the battle of Bannockburn. In one old Gaelic song alone does the name of William Wallace, the Scottish hero, occur. In this song the author compares the Earl of Argyll with *Uilleam Walas*; and the form in which the name is found, shows that it was not naturalised among the Gaels. Yet Sir Neil Campbell of Loch Awe, and several other Highland chiefs, with their clansmen, supported Wallace in the war of Scottish independence. It seems therefore that myths are transmitted through very long periods of time by tradition, and that historical facts vanish from oral narratives in a few generations. The tales and ballads found in the Highlands, which recount the feats of the Feinn, are as unhistorical, with respect to facts, as it is possible for any fiction to be. As already stated, the heroes and heroines are evidently personifications of the powers and phenomena of nature, and like the mythical tales of other nations, delineate the alternations of day and night, the succession of seasons, storm and calm, cloud and sunshine, heat and cold, growth and decay.

The two principal tribes of the Feinn were the children of Morna and the children of Baoisgne; Fionn MacCumhaill was the chief of the latter, and Goll MacMorna of the former. They have quarrels and feuds amongst them; but they invariably combine to fight against the men of Lochlan or Darkland. Fioun MacCumhaill, besides being chief of the children of Baoisgne, was lord of all the Feinn, and Goll MacMorna was subordinate to him. Their country was Eirinn, Westland, which was also called *Tir-Fail*, a name seemingly meaning "Land of Light." M. Windisch traces the Gaelic *Solus* "light," and *follus* "clear, manifest," to the root *svar*, "to shine," and from the same root, doubtless, comes *Fal* (nominative of fail). *Innis Fail*, "Isle of Light," corresponds to modern Ireland in Feinn story and Eirinn to Ireland and the Hebrides. Fionn is frequently called in these traditions *Flaith Fail*, "Lord of Light," and all the heroes are sometimes spoken of as *Uaislean Fail*, "Nobles of Light," and at other times *Flaithean Fail*, "Lords of Light." In the ballad of Caoilte and the Giant, the expression *Mhic Righ Phail*, son of King of Fal, occurs, and in one variant of it the same expression is replaced by *Mhic Righ Soluis*, "Son of King of Light;" in another verse of this



variant is to be found *Mhic Rìgh Fail*, "Son of King of Fal." So it would appear that Fal and Solus were in olden times synonymous. (Campbell's "Heroic Gaelic Ballads," vol. i, pp. 54, 56, 57.)

In a Scottish Lowland poem, the "Interlude of the Droicha," we have an account of Goll MacMorna's birth, which appears to have been analogous to that of Dionysus and of Athênê:—

"My fader meikle Gow-mac-morne,  
Out of his moder's wame was schorne,  
For littleness was so forlorne  
Sican kemp to beir."

Highland story, so far as we know at present, says nothing of Goll's birth; but this account of it must have been, in former times, current among the Gaels of the north-west of Scotland. Goll's other Highland name is *Iolann*, which denotes "Light giver," and is derived from *ial*, "light." In Irish writings his other name, besides Goll, is *Aéd*, a name which signifies "fire." The name *Goll*, which means "blind," he received, according to Highland story, after having lost an eye in a fray in Lochlan; but, according to Irish chronicles, was deprived of it by one *Luchet*, whom he killed thereafter at the battle of Cnucha, fought between Conn of the hundred fights and Cumhall, the father of Fionn. His father, Morna, had also another name, *Dairi donn*, according to Irish accounts, and a Highland ballad speaks of his grandfather Neamhan, the father of Morna. The name *Dairi*, the modern form of which is *Daoire*, the Dyr and Dyryth of the Dean of Lismore's Book, is, like the classical names Zeus, Dianus, Juno, and the Teutonic names Tyr, Tiu, Tuisco, traceable to the root *dyu*, "to shine," from which come several other names met with in the Feinn ballads and tales, e.g., Diarmaid, Dearg, Diurag, Deirdre; also the Gaelic words *dears*, "to shine," *dealan*, "lightning," *dealradh*, "effulgence," *deachair*, "bright," *dearg*, "scarlet," and *Teirt*, "morning or dawn." A brother of Goll is named *Daoire*, another, *Flann*, "Red," and a third, *Garaidh*, "Heater," from *gar*, "to warm or heat." Of the same origin with *Garaidh* is *Graine*, the name of a lady who was betrothed to Fionn and eloped with his nephew Diarmaid. *Grian*, a feminine name like *Graine*, is from the same root, and is the only living name in Gaelic for the sun.

Goll and his tribe, the children of Morna, would seem to be personifications of sea-side phenomena, the sun setting in the sea and rising out of it; the glowing western sky of evening twilight and eastern sky of dawn, reflected from the waves, become luminous with borrowed light, and tintured with variegated, brilliant hues. Near the sea Goll performed the most of

his feats ; at Eas Ruadh, close to it, he fought and killed Dyr Borb—fierce Dyr ; wading in it he fought and killed Kerrel or Caoireall, a son of Fionn ; and on a rock in the sea he was killed himself by Mugan MacSmail. In Ireland the children of Morna are localised in Connaught, and some Highland stories locate them in the Highlands. In the name Morna we have the Keltic base *Mor*, denoting “sea,” from which is derived the Gaelic *muir* and the Welsh and Breton *môr*, “sea.” Morna is, therefore, the “sea being” or “person.” *Dairi dere*, his other name, signifies “Bright-red Shiner,” and would appear to have been an old metaphorical name for the rising sun darting its rays through the red-tinted clouds of dawn. *Neamhan*, the name of Morna’s father, also signifies “Shiner” or “dweller in brightness.”

The children of Baoisgne whose chief was Fionn MacCumhaill, mostly personify physical powers and appearances in districts where the sea is out of sight ; inland sunrise and sunset ; inland dawn and gloaming. The exploits of Fionn, Diarmaid, Caoilte, and Osgar are not much associated with the sea ; nor the deaths of Diarmaid, Osgar, and Fionn. Baoisgne, the name of the progenitor of the Baoisgne tribe, might be derived from *baoisg* or *boisg*, “to shine ;” but in the pedigree of Fionn compiled by the Vicar of Bienn Eadair (“Heroic Gaelic Ballads,” vol. i., p. 34), the form of the name is Baiscne ; and *baiscne* is an obsolete Gaelic or Irish name for “tree.” *Basc* is an obsolete Gaelic word, meaning “scarlet.” The name may, therefore, signify “Shiner, Red-being, or Tree.” *Inis na fiodhbhuidhe*, “Isle of Wood,” is an ancient name for Ireland ; and it implies that this island was in olden times covered with forests. In those ancient times, consequently, the sun, moon, and stars would be seen rising and setting in the woods, in the interior of the country ; while the red, purple, and yellow clouds of early morning and late evening would appear in the distance as branches of varied and fantastic shapes, covered with gorgeous foliage. Traditional story informs us that Fionn’s nurse, having run away with him when a child to save him from those who aimed at his destruction, had the trunk of a tree hollowed out to serve as a hiding-place for herself and the child ; and to this excavated retreat the bark of the tree was adjusted for a door. Here he was fed on fat, instead of milk from the breast, until he was able to walk and go about. Bathing in a lake one day, he encountered a number of young princes whom he plunged under the water and drowned. In consequence of killing these princes, he found it necessary to take to flight and find out some other retreat farther off from his enemies. He set off accordingly, carrying his nurse on his back through the

forest. When he got through it nothing remained of the old woman, his nurse, but the two legs. He threw them into a lake close by him, where they became two large monsters. Here, as he looked around him, he observed a man fishing on a river. He walked up to him and asked him if he was getting any fish. He said, No; that he had been fishing for years for the king, and that he had not yet caught a trout for him. Fionn asked him to fish in his name. This the man did, and he killed a trout for the king, one for the queen, one for the king's son, one for the king's daughter, and one for Fionn. The directions that he received from the fisherman *Arcan Dubh*, "Black Bung," with respect to cooking the trout are best told in Mr. J. F. Campbell's translation of this story. (Campbell's "West Highland Tales," vol. iii., pp. 335, 336.)

"Thou must, said Arcan, broil the trout on the farther side of the river, and the fire on this side of it, before thou gettest a bit of it to eat; and thou shalt not have leave to set a stick that is in the wood to broil it. He did not know here what he should do. The thing that he fell in with was a mound of sawdust, and he set it on fire beyond the river. A wave of the flame came over, and it burned a spot on the trout, the thing that was on the crook. Then he put his finger on the black spot that came on the trout, and it burnt him, and then he put it into his mouth. Then he got knowledge that it was this Black Arcan who had slain his father, and unless he should slay Black Arcan in his sleep, that Black Arcan should slay him when he should awake. The thing that happened was that he killed the carle, and then he got a glaive and a hound, and the name of the hound was Bran MacBuidheig."

*Fionn* means "white, fair, clear." As a substantive it is now restricted in meaning to "cataract on the eye;" but it anciently signified "a fair person," a fair-haired person, or anything white or clear. As a verb, it formerly meant "to see, to look, to perceive;" and metaphorically it denoted "sure, sincere, pleasant." From these several meanings it is sufficiently evident how it might be a name for the pure clear sky, and for the bright day of unobscured sunshine, and also for an imaginary hero, noted for his wisdom, knowledge, and justice, who was king of a race of mythical, redoubted warriors. Fionn MacCumhail, the "Lord of the Feinn," the "Lord of Light," is surnamed *finnla*, "fair day," in a variant of the "Lay of the Distressed Maiden" ("Heroic Gaelic Ballads," vol. i., p. 128), and in a variant of the "Poem of Diurag," at page 219, the epithet, *fiorghlic* "truly wise," is applied to him. He is mentioned in the "Interlude of the Droich's," the Scottish poem already quoted, as having power over the sky; and from this

poem, as well as from several others, it would seem that the Highland and Irish Feinn myths were current at the time those poems were composed in the Lowlands of Scotland. Here is the stanza that makes honourable mention of our Goidelic hero:—

“My fore Grand-sire heicht Fynn-Mac-Koull,  
Quha dang the Deil and gart him zoul,  
The skies rained fludes quhen he wad skoul,  
He trublit all the air.”

The Deil in this passage is obviously the one-eyed Lochlan Smith, whom the Feinn compelled to forge arms for them. This smith was seven-handed, and was assisted by *Daorghlas*, one of the Feinn, in making the swords. The name *Daorghlas* signifies “Shining Grey;” but he received the name *Caoilte*, “Slender,” from the smith, and by this name he was thenceforth called. When the swords were finished, the smith told them that they should not be perfect unless they were tempered in human blood. They cast lots with respect to the person in whose blood the weapons were to be tempered, and the lot pointed out “Fionn, King of the Children of Baoisgne,” for a victim. Fionn walked out of the smithy, observed a bye-way, and went along it, until he came to a house, which he entered, where he found the smith’s mother, whom he told that her son wished to see her. “It is seven years,” she said, “since I have seen my son;” and she went with Fionn to the smithy. When she entered the smith plunged the swords through her body, not perceiving at first that it was his mother. Fionn received his sword from the smith, after it was tempered in the old woman’s blood, and then thrust it in the smith and killed him, so that he had the sword fully tempered to his wish. (“Heroic Gaelic Ballads,” vol. i., pp. 66, 67.) Mr. Cox, in his “Aryan Mythology,” quoting from the ballad of the One-eyed Smith in the “West Highland Tales,” calls the smith “the genuine Kyklops.” Of the smith’s appearance and accoutrement Mr. Cox remarks:—“All this explains itself. The hammering tools and steel lathe are the thunder and lightning; and the thunder-cloud strides across whole valleys at each step, and clings to the high grounds and the mountain sides.” (“Aryan Mythology,” vol. i., pp. 356, 357.) The following is the passage in the ballad of the One-eyed Smith, in the “West Highland Tales,” to which Mr. Cox alludes in the above:—

“There was seen nearing us  
A big man upon one foot,  
With his black, dusky black-skin mantle,  
With his hammering and his steel lathe.

"One shaggy eye in his forehead ;  
 He set off like the wind of the spring-time  
 Out to the dark mountains of the high grounds.  
 He would take but a single leap  
 O'er each single cold glen of the desert."

Caoilte, whose first name was *Daorghlas*, "Shining Grey," was Fionn's foster-son and his nephew by the mother's side. He is the impersonation of lightning; of the sun's rays when the sky is overcast with dark clouds and the sun concealed from sight; of starlight and moonlight in cloudy nights; in short, of the rays of all luminaries of the sky considered apart from the luminaries themselves. He was the swiftest of the Feinn heroes, and, when at full speed, appeared to have three heads. How transparent his mythical character is, appears from a poem in the Dean of Lismore's book (English translation, pp. 62-71), which recounts how he obtained the release of his foster-father and uncle Fionn, who was a prisoner of King Cormac. The feats that he performed previous to his obtaining the release of Fionn from Cormac fully identify him with the lightning:—

"The calves I slew with the cows,  
 Which I found in all fair Erin."

"The fields all ripe throughout the land,  
 I set them a blazing brightly ;  
 Then indeed I had my triumph,  
 For I made a total havoc."

"Then it was they loosed against me  
 The horse of Albin and of Erin.  
 My fleetness gave me victory,  
 Until I reached Ros illirglass.  
 Then I westward took my way  
 To Taura, although great the distance ;  
 Not one horse of all the troop  
 Had Taura reached so soon as I did."

When he arrived at Cormac's palace he obtained the door-keeper's clothes and held the candle for Cormac. In this disguise, nevertheless, Cormac recognised him. Wishing to procure his foster-father's freedom, he asked Cormac on what conditions he would set him free. Cormac told him that it should be done only on one condition, which was to procure for him a pair of every species of wild animal. This, Caoilte, difficult as it might seem to ordinary people, managed to do! One would think that he would require to be a fast flier, as well as a fast runner, to catch the birds! They were now put into a stronghold, the doors of which were thereafter shut:—



"There was a little ray of light  
Reached them in through fifty openings."

Here Caoilte had to watch them until morning, which he did, and allowed none of them to escape. Caoilte, who relates his own story, tells what ultimately happened:—

"To see them standing side by side,  
Was all the profit got by Cormag,  
For when Finn did get his freedom,  
All of them did scatter widely."

Here we have actually a thunder-storm of a destructive character; a night, at first dark and clearing up before morning; finally the disappearance of the stars with the coming day, the liberation of Fionn, and the dispersion of the birds—the stars, when the doors of the stronghold—night—were opened.

The trout which Fionn roasts by the flames of a fire kindled on the opposite side of the river on which it was fished is seemingly the sun. In another story, that of the Rowan tree dwelling, an enigma is proposed to Fionn for solution, viz., Swifter than a horse and it was the young offspring that was seen? Fionn's solution is: *The salmon-trout of the red spots, for he will travel the world in a year, which a horse cannot do.* *Earc* is an obsolete Gaelic name both for "salmon" and for "heaven"; so Fionn's metaphorical expression, converted into the scientific language of our day, means that the earth revolves round the sun, or apparently the sun round the earth, in a year. The sky is here figuratively called the parent of the sun, which travels the world in a year. Arcan Dubh, who in one story is said to be the slayer of Cumhall, Fionn's father, is the end of night, the darkness that prevents the light of dawn from issuing forth and would kill young day, the son of Cumhall, "early night," whom Black Arcan killed. The name Arcan is of the same origin as the Latin arceo. As already mentioned, the name means "bung or stopper," so Black Arcan is the enemy both of early night and of early day. He plans the death of Fionn, "day," at the rising of the sun, but his own death is the result. The name Cumhall is not to be confounded with the obsolete Gaelic word *Cumhal*, "a handmaid." A single story, of which there are no variants, makes Cumhall the name of Fionn's mother. In all other stories, both Irish and Highland, Cumhall is a man and the father of Fionn. In Welsh we have *Cwmwl*, "cloud," and in Breton, *Commol*, "cloud, darkness"; so evidently the primary meaning of Cumhall was, in all likelihood, the same as that of those two words in the two other cognate Celtic languages. All the traditions, as well as Irish chronicles, inform us that "Murni Muncaim," or Murenn Mong-Chaen, daughter



of Tadhg, the druid, was the mother of Fionn. This name signifies the woman of the fair neck,—dawn. *Tadhg*, or *Tadhg*, denotes "poet or orator," and the father of the dawn is the early breeze that harmonises with the morning songs of the birds.

The most popular account of Cumhall's death, also that which is given in Irish chronicles, is that he was killed by the sons of Morna. Highland story relates that Goll pierced him first with his spear, that the men of his tribe followed Goll's example, and that Cumhall died of the wounds received from them, uttering loud groans. The name of the warrior who destroyed Goll's eye, "*Luchet*," is apparently cognate with the Welsh *Uluched*, "flashes of lightning," and the Breton *luhet*, "a flash of lightning." *Iolann*, "the light giver," *Aedh*, "fire," killed *Luchet*, who destroyed his eye, and Cumhall; and was called *Goll* "one-eyed," after having been blinded of an eye, as the sun is blinded by the lightning and the thunder-cloud, but as the thunder-storm comes to an end, the strong solar rays pierce the scattered dark clouds, the sky clears, and the single eye of day, the brilliant sun, shines with unusual splendour.

Goll was the strongest of the Feinn. It was he who fought and overcame the strongest of their enemies. He once released Fionn, whom the enchantment of three evil magicians, Nemh, Agha, and Acuis, fastened to his seat by ice in a Rowan-tree booth. *Nemh* means "poison," *Agha* is derived from *aig*, "ice," and *Acuis* from *ec*, "dark." Goll, the strong sun, the Goidelic counterpart of the Greek Hercules, and the Scandinavian Odin, overcomes the snows, frosts, and long dark nights of winter, and brings on spring and summer. The last feat of Goll was the slaying, in single combat, of a son of Fionn, *Caoiraeall*, "Sparkler," starlight mostly extinguished by the long days and twilight of midsummer. In consequence of this act he was driven by Fionn and the tribe of Baoisgne into a rocky islet in the sea. Aine, his wife, converses with him from the opposite shore and tries in vain to persuade him to come to land. *Aine* literally denotes "blaze," and metaphorically "delight." The verdant blooming earth of summer grieves for the death of the north-going sun at the summer solstice. Goll informs his wife of his approaching end and that her future husband is to be *Aedh*, "fire," from Spain, to whom she will bear nine sons and one daughter. The north-going sun is to be succeeded by the south-going sun, the fructifying sun of autumn, whose children are the ripe fruits and corn brought forth and nursed by mother earth.

Goll is slain on the islet by a person whose name was Mugan MacSmail. The name Mugan is derived from *mug* or *muck*, "smoke," and *Smal* denotes the black dust that results

from the combustion of fuel, or the snuff of a candle. The death of Goll is the obscuration of the light of the setting sun by the dark clouds that gather over him on the western horizon.

NOTE.—The name *Goll* is not, probably, identical with the homonym *goll*, blind one-eyed; it is more likely to be cognate with the Welsh *golen* and the Breton *Goulon*, "light."

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### THE SPREAD of the SLAVES. Part III.

#### THE NORTHERN SERBS or SORABIANS and the OBODRITI.

By H. H. HOWORTH, Esq., F.S.A.

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#### *Section I.*

IN the two previous papers of this series we have dealt with a number of tribes whose homogeneous character is remarkable, and who have more or less a continuous history which can be followed without difficulty. We can trace them from their first home in the country north of the Carpathians until they occupied a large portion of European Turkey, and we can study their descendants there in an unmixed and largely unsophisticated condition. Subjects of the Turks, they have mixed little with them or their other neighbours, and in language and many other characteristics they are very much what their ancestors in the seventh century were.

We have now to consider a more difficult and complicated series of tribes, who migrated in a different direction and who, after being broken to pieces and disintegrated by their German neighbours, have been largely absorbed by them. Over large areas they no longer exist as Slaves. Their language has been altered and changed, and they are to all intents and purposes Germans. This increases largely the difficulty of following their history, which is further complicated by the fact that Slaves belonging to two of the great divisions of the race were possibly settled in their area, and that they have, in our view, been confounded together. This will involve our taking a somewhat minute survey of these tribes.

They are all classed together by Schafarik under the name of Polabian Slaves, a name derived from their living on the Elbe. Po meaning on, while Labe is the Slavic name for the Elbe, a name which is constructed in the same manner as Pomorianian,

which similarly means those living on the sea. This is not a bad generic name for them, except for the fact that one of the tribes is known specifically as Polabi, so that we have to use the term both in a generic and specific sense. Schafarik also includes in the name tribes which I believe belonged to two distinct divisions of the Slaves, and which we shall attempt to discriminate. These divisions were the two grand sections of Eastern and Western Slaves. The Serbs and Russians are typical examples of the former, while the Poles and Bohemians are similar examples of the latter. This second class we are not now dealing with, consequently we shall separate those tribes which, in our view, belong to it. I would say *in limine* that the main reason for holding the view here urged is the consistent notice which the Frank annalists give of the alliances and policy of these tribes. While they mention the Wiltzi as the persistent enemies of the Franks, and as the allies of the Saxons, the Obodriti and their associated tribes are found constantly in alliance with the Franks, and at issue with their rivals the Saxons. This is so constant that I cannot doubt that the two tribes belonged to different divisions of the race, a view which is largely confirmed when we find that the Wiltzi are actually mentioned by Ptolemy, and placed by him on the Oder, while the other tribes, their rivals, are not named by him, but their country is made the home of a series of German tribes. When we come to discriminate between the two in detail, the matter becomes very difficult; our best guide, language, is only partially available, for the difference which so easily marks off the dialects of the Eastern and Western Slaves has largely disappeared in consequence of the adoption of German as the mother-tongue of all the tribes. Schafarik, as I have said, classes them all together. Much of what follows is necessarily tentative, and in some cases must always remain so; but it is the best result which seems to me at present available after weighing the evidence. The old indigenous stock of Slaves of the Oder and its neighbourhood belonged to the Western Slavic division, of which the Poles and Bohemians are the chief factors. The intruding Slaves perhaps belonged to the Eastern section, of which the Russians and Serbs are the most typical specimens. It is with the intruders we have at present to deal.

I believe they may be roughly divided into three sections: the Obodriti and Wagrians in Mecklenburgh; the Sorabians or Serbians Proper, living in the district called Sorabia, in Spruner's map, number 31, and including also large colonies west of the Elbe, and a strip of territory along that river, joining them to the Obodriti. These, I believe, were the White Serbians of Constan-

tine Porphyrogenitus; and thirdly, the people of Upper and Lower Lusatia and of Silesia who were, as I believe, the White Croats of the same author (*vide infra*). We will now examine these three divisions in detail beginning with the Obodriti.

When we first meet with the Obodriti in the pages of the Frank annalists, they were, as I have said, closely allied with the Franks, while their enemies and rivals, the Wiltzi, were allies of the Saxons. So much was this recognised, that in the "*Annales Laureshammenses*," under the year 798 we read of "*Slavi nostri qui dicuntur Abotriti*" (Pertz i, 37). This feud between them and their neighbours on either hand, which was probably the reason for their close friendship with the Franks, when read with the fact that they are not named by the classical authors, makes it exceedingly probable that they were an intrusive population into this area; and this again is more than confirmed when we find, as I have shown, that there were Obodriti elsewhere, namely, on the Danube. This last fact shows that the race was broken into fragments. We shall therefore have no difficulty in treating the Northern Obodriti as an immigrant race. This clears the way considerably, and we can the more easily inquire who they were and whence they came. The name occurs in various forms, as Abotriti, Abodriti, Abotridi, Obotitri, Obodriti, Apdrede, Afdrede, Nortabtrezi, etc. (Schafarik ii, 587). Zeuss in one of his notes suggests that the name is compounded of Ob and Otriti or Odriti, and connects them with the River Oder. But this seems to be very unsatisfactory as an etymology, and I very much prefer the authority of the great Slavic ethnologist, Schafarik, who tells us it is clearly a Slavic name, and compares with it Bodrica in the government of Witepsk, Bedrici in the government of Kaluga Biedrzyce, the name of four places in the government of Plotsk. Bedre, in the Bernese Alps, a town Bidrici in a document of the Emperor Otho in 949, a town of the same name in a document of 965, Bidrizi in 992, Bitrizi in 995, and still known as Biederitz, lastly the name of the castle of Bodrok, and the circle or province of Bodrog (stolice Bodrocka) in Southern Hungary (Schafarik ii, 588). The same author concludes that the name is ultimately derived from the word "bedr" or "bodr," meaning (vigil, strenuus) the German bieder, the termination in Abtrezi Bidrizi, etc., being the patronymic "ici," and Bodr or Bodrog being a man's name, the primæval eponyms of the race, so that Obodriti or Abtrezi simply means the tribe or descendants of Bodr or Bodrog, as the Inglings, Scioldings, etc., mean the clan of Ingve, Sciold, and so on. This is the usual way in which the neighbouring tribes were named, and in receiving the sanction of such a great Slavic scholar as Schafarik, we may safely put aside that of

Zeuss, and discard the connection between the Obodriti and the River Oder, which was far away from their sites when we first discover them. The name Obodriti seems to have been used in two ways, generically and specifically. Generically it seems, as Schafarik, Zeuss, and others are agreed, to have included a number of small neighbouring tribes, who are respectively known as the Wagrians, Polabians, Smolingians or Smeldingians, Linones, Bethenici, and Warnabi. At other times the name Obodriti was a specific one, and limited to a special tribe. This special tribe of Obodriti lay immediately on the Baltic between the Rivers Warnof and Trave. It was bounded on the west by the Wagrians, on the east by the Wiltzi, and on the south by the Polabians.

Its chief towns were Rereg or Reric, from which they were also known as Reregi—Schafarik connects this name with Rarog the falco cyanopus, and mentions a castle of the same name in the Voievodshaf of Plock, and with such names of towns and castles in Serbia as Sokol (a falcon), Orel (an eagle) and Gestrab (a hawk)—two, Roztok; three, Zwerin or Schwerin, Lubof, called by the Germans Mickilnburg, *i.e.* great town Il of Zwanof, etc., etc. (Schafarik, 588).

The Wagrians, as I have said, bounded the Obodriti proper on the west. They lived in the north-eastern part of Holstein, and were bounded on the north by the Eider, on the east by the Baltic, on the west by the Swentina, the Ploner Lake, and the Birzing. On the west they were conterminous with the so-called Limes Saxonius, and on the south-west with the Polabi. Their chief towns were Stargard or Oldenburg, Lutilnburg, now Liutenburg and Bukowec, now called Lubeck, Plona, and Utin. Schafarik gives the various forms of the name as Wagri, Wagri, Waigri, Wagrii, and Waari, and says he neither knows the right form of the name, nor its meaning; but this last form, which is taken from Widukind, the Saxon annalist, shows that the name is a corruption of the old name, Varini or Werini, a tribe which was the neighbour and relative of that of the Angli, and it is more than probable that the Slavic Wagrians were so called only when they invaded and occupied this district, formerly inhabited by the Varini. It has been generally considered that this occupation took place in the year 804, when we are told Charlemagne gave the land of those Transalbingian Saxons, whom he dispossessed, to the Obodriti. I believe, therefore, that they were a comparatively recent section of the Slaves, formed by emigrants from the country of the Obodriti proper. When these colonists occupied Wagria, they also, apparently, took possession of the Island of Femern, opposite the Peninsula of Aldenburgh, which in the days of Helmold was occupied by Slaves (Zeuss, 654).



South of the Obodriti proper and the Wagri were the Polabi, the Polabingi of Adam of Bremen and the anonymous "Annalista Saxo," and whose name, as I have shown, simply means the dwellers on the Elbe. That river bounded them on the southwest, and separated them from Saxony. On the west they were bounded by the "Limes Saxonius," on the north by the Obodriti and Wagri, and on the east by the Warnabi and Linones. Their chief towns were Ratibor, called Raceburg in a document of the year 1154, and Racisburg by Adam of Bremen. Within their land was also Smilowopole. "In terram Polaborum in campum qui dicitur Smilowe" (Helmold, c. 34, p. 88, Schafarik, ii, 589). The former may be compared with the name Ratz and Rassa, a well-known town of the Southern Serbs, which occupied us in our last paper. Smilowopole means the country of Smilowe. I have little doubt that these Polabi were of the same race as the Obodriti, and doubtless a section of them.

According to Schafarik, the Smolinzi were a section of the Polabi. They lived between the modern towns of Boizenburgh and Dömitz. They are mentioned by the Bavarian geographer under the name of Smeldingon. The Frankish annalists refer to them, in the year 808, under the style of Smeldingi. In the Chron. Moissiac. it is said under the year 809, that the Saxons crossed the Elbe and attacked a town of "our Winidi," called "Semeldinc Connoburg," i.e., the town of the Smeldingi. The fact that these Smeldings are called "our Winidi," by the Frankish Chronicle, shows they belonged to the same section as the Obodriti, and not to the rival race of the Wiltzi, and what makes this almost certain is that we find tribes of a similar name among the Eastern Slaves. One of these gave its name to Smolensk, a famous town of White Russia; while another section of them is found on the south of Bulgaria, on the borders of Thrace and Macedonia, on the River Meta, and was known as Smoleny (Schafarik, ii, 221). Many names in Russia are also derived from them, as Smolewici, Smolianka, a river Smoliaz and Smolin, in the government of Chernigof, Smolianici, Smolaki in that of Smolensk, Smoliany in that of Mohilef and Smolany, Smolarze, Smolen, Smolice, Smolinki, etc., in Poland. (*Id.* 590.)

The termination "ici" in some of these names, and of "ing" in Smolding, shows that the name is a clan name connected with some patronym, Smol or Smold. Their chief town seems to have been called Connoburgh, which according to Leutsch is represented by a place called Kanneburgh, on the road from Zehdenik to Lychno, and according to Ledebur is Connof on the Eldena (Schafarik, ii, 590). The Linones bordered on the Polabi on the east, no doubt occupying the modern "Gau" of Linagga (Spruner's Atlas, map 31). They were limited on



the north-east by the Warnabi, on the south-west by the Elbe, on the south by the Bethenici, and on the east by the Wiltzi, and are named by the Carolingian historians in connection with the Smeldings, thus: "Filius imperatoris Karlus Albiam ponte junxit, et exercitum cui præerat in Linones et Smeldingos transposuit, etc." (Eginhardt, Pertz i, 195), and elsewhere (Zeuss, 651). They were also called Lini, Linai, Lanai, Linaa, Lingones, Linones and Hilinones. Schafarik has argued that the indigenous name was Glinani, and derives it from "glinā," which was applied to many rivers, streams, etc. (*op. cit.*, 591). Their chief towns were called Lentschin, Lunkini, or Lunzin, and in later times Lentsin and Leontia, the modern Lenzen; and Potlustin the modern Puttitz.

The Linones are made a section of the Obodriti by Schafarik, a view which is very probable. Colonies of the Linones apparently found their way west of the Elbe. The river called Lūna by the Germans, and Glinā by the Slaves, on which the modern city of Lüneburgh is situated, reminds us of this. In the year 795 the Fuldensian Annals mention that Ulcan, the Prince of the Obodriti, having been captured by the Saxons, died in the town of Liuni near the Elbe. Widukind glosses this as the monastery of Lüne in the Bardengau (Schafarik, ii, 590). The Linones are mentioned in 808 by Eginhardt, both in the annals and in the life of Charlemagne. They are called Lini by the Poeta Saxo, Linai and Lanai in the Chron. Moissiacense. In the Bertinian Annals of the year 839, and those of Fulda of the years 858 and 877, they are called Linones; by the Bavarian geographer, Linaa, and he says they possessed seven towns: "Linaa est populus, qui habet civitates VII." In a deed of Otho the First, dated in 946, the district is called Linagga; Adam of Bremen calls them Lingones; Helmold, Lingones, Lini, and Linoges; and the Annalista Saxo of 952, Linones. In some MSS. of Eginhardt, the name appears as "Hilinones," "Hilinonicum bellum," whence, as I have said, Schafarik, following Grimm, concludes that the indigenous name of the tribe was Glin, Glinai, or Glinsti.

We also find the name in the district between the towns of Arendsee and Lauchof, which was formerly called Lenegon or Lennegou, and referred to in a deed of Albert the Second, dated in 1208, as Linegow (Wersebe, Elbe Gaue, 254). I would remark that the name Uelzen which occurs in the district of Bardengau in Wersebe's map, has nothing to do with the Wiltzi, but is a corruption of Ulleshem, as the name is spelt in a document of 1142. (*Id.*, 247.)

East of the Polabi, properly so called, were the Warnabi or Wrani, and who are made a part of the Obodriti by Schafarik, as I think justly. By Adam of Bremen they are called

Warnabi or Warnahi. Helmold calls them Warnavi, and the Annalista Saxo, Warnabi. In a document of Pope Urban the Third, dated in 1185, their country is called Warnowe, in another of Pope Clement the Third, dated in 1189, Warnonwe, while in a third of 1222 it is called Wornawe. They were also known as Wrani, Wranovi, and Wranefzi. Their name is undoubtedly derived from the river Warnof, also called Wrana and Wranawa. We find the name occurring among the Eastern Slaves as Warna or Varna in Bulgaria, the River Warnawa in the Russian Government of Tambof, and the village of Warnowici in Kurland. The name is probably not originally Slavic, for the Teutonic Warini, who occupied the area of these Slavic Warnavi in classical times, bear a name clearly derived from the same root. Among the towns of the Warnabi were Malikof, the modern Malchhof, Wranowo (now Warnou), Werle, Warle, or Wurle, etc. (Schafarik, ii, 592-593).

The land of Warnowe is mentioned in a marked manner in a description of the boundaries of the bishopric of Mecklenburg in 1185, which runs thus: "*Silva, quæ distinguit terras Haveliæ (i.e., Havelland), scilicet et Muritz, eandem terram quoque Muritz et Vepero cum terminis suis ad terram Warnowe ex utraque parte fluminis quod Eldene dicitur usque ad castrum Grabow . . .*" While in a document of 1189 we read: "*Distinguit tandem terram Möriz et Veprouve cum omnibus terminis suis ad terram quæ Warnowe vocatur, includens et terram Warnowe cum terminis suis ex utraque parte fluminis quod Eldena dicitur usque ad castrum quod Grabou nuncupatur*" (Zeuss, 653).

Near Grabof, south of the Elde, and just on the borders of the Grand Duchy of Mecklenburgh, is a village called Warnof, which doubtless received its name from this people.

With the Linones are named the Bethenici, who are referred to among the Frank annalists, only in the Chron. Moissiac. under the year 811, where this chronicler writes, "*ul tra Albiam ad illos Sclavos que nominantur Lanâi et Bethenzi.*" (Variants of this name occur as Bethenzr, Bechelenzi, and Bethelclereri.) The Bavarian geographer speaks of them thus: "*Prope illis (Linaa) resident quos vocant Bethenici et Smeldingon et Morizani.*" Dithmar, says Schafarik, speaks of a special class of citizen warriors called Vethenici, and speaks of them thus: "*In ea parte (Misnæ urbis), qua satellites habitant, dicti Sclavonice Vethenici, Cukesburgienses.*" Schafarik explains the name by the word wetnik, in plural wetnici (the Serbian cetnik cetniki), derived from the root wet, whence weta (habitaculum), powet (pagus,) witati (habitare) or from wetiti, zawetiti, hajiti, gennanhägen, a fence.

Among the Drewani a town is called weika, where as in

other words the *k* stands for *t*; with *wetnik* may also be compared the Lithuan title *wetininkas*. *Cukesburgenses*, *i.e.*, *Kukesburger*, is explained as meaning *speculatores*, *excubitores*, *custodes arcis vel burgi cujusdam*. It would therefore seem that the name *Bethenici* represents a class of men, and has no ethnic value, and this is confirmed by the fact that it has left no traces in the topography of the district, for *Pertz* is clearly mistaken in connecting it with *Priegnitz* (*Schafarik*, 591-592, and notes). That name which now connotes the country south of *Mecklenburgh*, and bounded on the west by the *Elbe*, is doubtless derived from the *Brizani*. *Helmold* mentions these last with the *Stoderani*, saying: "*Brizanorum et Stoderanorum populi qui Havelberg et Brandenburg habitant*" (*Zeuss*, 651). *Havelberg* is a well known town. In the district of *Priegnitz*, the chief centre is *Pritzwalk*, which retains the name of the *Brizani* more closely. *Zeuss* mentions *Treuenbrietzen*, a place I cannot find on my maps, as also connected with them. In a document of *Otho the First*, dated in 946, we find the name *Nieleticigau* applied to this district; we are told the gau contained the towns of *Havelberg* and *Nizem*, now called *Nizof*, from which latter it doubtless derived this name, which is a mere synonym with *Brizani* for the people of *Havelberg*.

The *Brizani* probably occupied the borders of the *Elbe*, as far south as the *Spree*, for in *Spruner's* map of the gaus in this district, I find a name *Pricipini*, near the modern *Jerichof*, and a name *Pricervi*, now called *Pritzerbe*, which are probably derived from the *Brizani*, and are roughly made the southern boundary of the *Bethenici* by *Spruner*. The name *Brizani* connects this tribe with the Eastern Slaves, among whom we have the town of *Pruzany* in the government of *Grodno*, while "*slobody Pruzenske*" are named in a deed of 1389, as subordinate to *Moscow*.

There was a district of *Berzitæ* in *Macedonia*; we also find the names *Berse* and *Bersen* in *Kurland*, *Berzy*, and *Berzany*, etc., in *Lithuania*, *Werezani* and *Warzino*, *Werzava*, *Werezani*, *Werzali*, and *Wertzby* in *Russia*, and *Bersiti* in *Serbia* (*Schafarik*, ii, 143-144).

Besides this evidence we have the further fact that the subordinate gau of *Nieletici* already named, has its exact counterpart in that of *Neletici*, a gau of the *Sorabians* to which I shall refer presently. Another subordinate gau of the *Brizani* was that of *Liezizi*, marked on *Spruner's* map as occupying the southern part of the land of the *Bethenici*. It was situated between the *Havel* and the *Elbe*, in the district called in later times *Klytz*. This gau is mentioned in a deed of *Otho the First*, dated in 937, as *Ligzice*, in another of the same year as *Ligsitze*, and in a third of 946 as *Liezizi* or *Liczizi*.

Bordering the Bethenici on the south were the Morizani, who were bounded on the west by the Elbe, on the east by the Wiltzi, and on the south by the Sorabi. Their name is variously spelt as Mortsani, Moraciani, Moroszani, Moritzani, Mrocini, Moresceni, and Mrozini, while the gau which still remains, and which took its name from them, is called Morazena, Morozini, etc., and also Marscinerlande (Schafarik, 584). In the *Descriptio Civitatum*, quoted by Zeuss, we are told: "Erat illic (ad Havelam), vastissima silva, qua diebus quinque transmissa venit ad stagnum miræ longitudinis . . . Erat etiam illic barbarorum natio quæ Moriz vocabatur" (Zeuss, 652).

There can be no doubt that they took their name from this marsh or moratscha, and that their name merely means Marshmen. A similar Morasa is to be found in Serbia.

Their chief towns were Liezke, Luborn, Tuchim, Bedrici, Nedelize, Guntmiri, Grabova, Budin, etc. (Schafarik, ii, 585).

They are mentioned in connection with the Smeldingi and Bethenici (Zeuss, 652). This fact and the important one that one of their towns was called Bedrici, which is probably but another form of Bodrizi, the native name of the Obodriti, makes it very probable that like the other tribes already named, the Morizani were a section of the Northern Obodriti—a view which coincides with the fact that in the excellent map of the gau of this district already quoted, the Morizani are separated and distinguished sharply from the Wiltzi.

I have now analyzed the various small sections which formed the nation of the Obodriti east of the Elbe, and have pointed out how they were situated between that river and the Wilzi. Now the Wilzi were a very aggressive people, and in constant feud with them, and we cannot doubt that they exercised a considerable pressure upon them. Even without this the more or less vacant lands on the west of the Lower Elbe would otherwise have naturally been colonized by emigrants from the eastern bank. I have already mentioned how it is supposed that Lüneburgh took its name from such a colony of the Linones. They doubtless also gave its name to the town Liuni, where in 795 the Saxons killed the Obodritan chief, named Ulcan, and which has been identified as the monastery of Lune, between Bardewik and Lüneburg. But besides these Linones there were other Slaves, west of the Elbe, who were doubtless also Obodriti. Thus there were the Drewani, who lived on the banks of the Jeetze, a western feeder of the Elbe, on which is the town of Salzwedel. Their name is derived from *drewo* (wood) and simply meant woodmen, being the Slavic equivalent of Holsati; another tribe of Drewani lived in Russia. Schafarik says that according to the evidence of several German scholars, such as Henning,

Keyssler, Wersebe, etc., all the district on both sides the Jeetze is known as the Wendish district, and was divided into several sections, as Drewanerland on the west of the Jeetze, between the towns Welzen, Lückhof, and Dannenberg; Glinianerland, in German, Lengof, or Lennigof on the eastern side of the Jeetze, Geyr or Kheyr, Nöring or Nehring, etc. In this district are several towns whose names prove the Slavic character of the old inhabitants.

Thus, Lückhof, the Slavic Liaukhef or Loikhowie, Dannenberg, whose Slavic name was Woikam and Weidors; Hitsaker, in Slavic Liauncii; Wustrof, in Slavic Wastrüf; Bergen, Slavic Iiorska; and Klenze or Claniki, Slavic Klonzka (Schafarik, 593). Lüneburgh itself, Glein, *i.e.*, Glin, Salzwedel, Slavic Lozdit or Lozdi; Gartin, Gorstii; Schnakenburg, Godegord, *i.e.*, Hadj Hrad, or snake town, Arendzee, Wlazdeiske, etc. (*id.*, note 3). South of this area is the district now known as Altmark, *i.e.*, the old frontier, which was formerly known as Beleseim, Belesem, Belshem, Belsheim, Balsamia terra, Balsamerland, Belxa. Zeuss explains the name as derived from the Slavic Bielozeria, Bielazemia, White Land. It was a mere western prolongation of the marshes on the eastern side of the Elbe, and its German names show by whom it was occupied. These were Wischweneden and Rohrweneden. Here too, in documents of the tenth and eleventh centuries, we find Slavic names, such as Clenobie, Centonie, Bremetzhe, Slautiz, etc. (Schafarik, 593 and 594, and note 1, 594).

If we move further south we still find traces of old Slavic occupancy. Slavic names occur along the whole left bank of the Ohre, a western tributary of the Elbe.

Thus we read in a document dated in 937, in the time of Otho the Great: "Ex aquilonali parte Horaba fluminis in locis ita nominatis, Mosan, Pelinizi, Dudizi, Wizoboro, Velbpuchi, Zelici."

Dithmar gives us the Slavic name of Wolmirstadt in the phrase "urbs Ualmerstidi Slavonice autem Ustuire eo quod Ara et Albis fluvii hic conveniunt, vocata." The name is derived probably from Usta, mouth, the Ohre probably having formerly fallen into the Elbe at this point (Zeuss, 660). In this neighbourhood we have other traces of Slavic occupancy in the old names Jeseritz (Jazarice), Mieste (miesto), Tarnewitz (Tarnowice, compare Polish Tarnof), Dolnitz (Dolnice), KobbELITZ (Cobbelici in old deeds), Wendisch Brome, Mellin (Bohemian, Malin); and on the eastern side of the Stöcken Lake we have the towns of Berchmere, Abbanthorp, Varenthorp, Pychenuzen, Ellenbeke, Watekoten, Budenstede; of which we are told, in a deed of 1161, "quarum incolæ adhuc Sclavi erant" (Zeuss, 660). The Slavic language survived in some of the places on the west of the Elbe



till the last century, and divine service was said at Wustrof in Slavic as late as 1751 (Zeuss, 661).

These Slaves west of the Elbe, I consider, as others have done, to have been colonies from the other side of the river: to have been in fact Obodriti, who perhaps retired before the aggressive policy of the Wiltzi.

On moving southwards we enter the land of the Sorabians proper. In contact with the Morizani, and bounding them on the south was the gau of Zerbisti, whose name survives in Zerbst. It was bounded on the east by Lusatia, and on two other sides by the Elbe. The name occurs in a deed of 949 as Ciervisti, in another of 975 as Kirrusti, and in later ones of 1103 and 1161 as Zerbiste and Cervisti. It is a palpable derivative of Serb, and several names of villages, such as Zurbici, Zribenz, Zorbwech, Serebez, etc., between the Elbe and Saale, show very plainly what was the native stock here.

In Spruner's map we find the neighbouring gau of Plone also assigned to the Sorabians. This gau derives its name from the River Plona, between which the Havel, the Nuthe, and the gau of Zerbisti, it is situated. It is called Ploni in 949, etc. In other early deeds this gau is otherwise called Zucha, the modern Zauke (Schafarik, ii, 386). South of Zerbisti and Ploni we have a number of small gaus. Two of these bear the name of Nisseni, and in contact with the Zerbisti and the other higher up the Elbe, between the Dalameni and the Milciani.

The two gaus are separated from one another. Their situation and boundaries may be admirably studied in Spruner's excellent map of the gaus of Slavania. The name occurs in deeds of Otho the First, dated in 948, 965, and 967, as Nisizi, Nizizi (the province), and Nisizi. In others of Otho the Second, of 973, 980, and 997, as Nitaze, Nikiki, and Nizizi. In one of Henry, of the year 1004, as Nizisi. In Dithmar, in 1018, as Nicicisi; in another deed of Henry, in 1069, as Niciza. In one of Count Adalbert, in 1073, as Nithsice, etc. In this gau we find the town of Belgern mentioned as early as 975, under the name of Belogora; Treskovo, in 1130; Sremsnica, in 1130; Mezumroka, in 981, etc.

South of the gau just described was that of Susali. The Susoli or Siusli are mentioned in the Fulda Annals, under the years 869, 874, and 877, and are called Siusli and Siusili; Alfred the Great calls them Syssyle or Sysle.

In deeds of the time of Otho the First, dated in 961, Siusile; in another of 965, a town of Susili is mentioned; in another the gau is called Siusilli; it is called Suselitz in one of 973, of Otho the Second; and Siusili in two of Otho the Third, dated in 985. In another of the Emperor Henry the Second, of 1004, the town



is called Siusili. Dithmar calls the gau Siusuli and Siusili; Helmold, Susietî. That the Siusili were Slaves is clear from the statement in the Fulda Annals, where we read of the "Sclavi qui vocantur Siusli," and in deeds of Otho the Second, of 985, with the phrase "terra Scлавinica Siuseli." The old towns within its borders also bear names which are clearly Slavic, Vetowizi, Resin, Kryn, Tornaf, Kemnitz, Mortitz, Rokenitz, Doberschwitz, Strelen, etc. The name of the tribe occurs in the neighbouring gaus. In that of Nizizi we have the town of Zulsdorf mentioned as early as the reign of Otho the First as Susili (Schafarik, ii, 603). I find in Spruner's map a place, Suseliz, in the small gau of Weitaba. Helmold mentions a district called Susla in Wagria, where Adolf the Count of Wagria, on the extermination of the Slaves, in 1139, planted some Friesians, and where the village of Susil still survives (Schafarik, ii, 603). Further north still, we have in the extreme northern peninsula of Jutland a name which is very embarrassing. This peninsula is called Wend Syssel, and it has been suggested, with some probability, that it took its name from another section of the Susili, who found their way there at the time of the northern migration of the Obodriti. The name is also a familiar one in Russia. (*Id.*, ii, 116 and 117.)

Let us now revert to the Susali on the Middle Elbe. West of them and south of the Elbe, we find several small gaus, namely, Serimunt, Nudhice, and Nelectice. Serimunt, formerly Zermunti, lies between the Saale, the Elbe, and the Mulde. It is first mentioned in a deed of Otho the First, in 945, as Ser-munti and Serimuntelande; in a deed of 952, Serimunt; in 964, Sermunt; in 965, Sirimunti; in one of Otho the Second of 973, we have mention of a Mark of Serimodem; in 974 we meet with Seremode; in 978, Zermute; in 980, Sirmunti; in 986, Cirimundi; in 992, Sirimunti, etc.

The name may be compared with those of Zirmuny and Zirmunty, in Lithuania (Schafarik, ii, 60). We may also compare with it the name of the town of Inner Sarmatia, mentioned by Ptolemy, which he calls *Σερμων* (*id.*, i, 512), and the Croatian chieftain's name of Sermon, who had his seat at Srem. (*Id.*, ii, 291 and 302.)

The Nudhice lay to the south-west of the Sirmunti and east of the Saale. Their name still survives in the village of Neutz. The gau is mentioned in two deeds of Otho the First, and is there called Nudzici, and in one of 965, Nudhici.

West of the Elbe, "in Suchalande," we meet with the mention of a priest "de Nydicien," in a deed of 1190. In Russia we have places called Nudyci, in Minsk, Vologda, etc., and in Bohemia, the names Nutice, Nucice, and Nuzice. South of this

gau lay that of Nelectice, between the Saale, the Elster, and the land of the Kolidizi. We have already met with a gau with a similar name in the land of the Brizani further north. In two deeds of 961, the name is spelt Neletici; in one of Otho the Second, of 973, Neletiki or Neletizi; and in another of 975, Neletiki. Leutsch thinks the name survives in the modern Neglitz (Schafarik, ii, 605).

North of the Nelectici and east of the Nudhici lived the Coledizi, probably so called, according to Schafarik, from the Goddess Koleda, as the Staditzi and Stoderani were probably named from the God Stado or Stodo. We have a place Koledziany in Eastern Galicia, and the Russian men's names Koleda and Koledinskii. Prudentius of Troyes, in the year 839, speaks of a campaign, "*contra Sorabos qui Colodizi vocantur*," thus identifying them unmistakably as Sorabians. The name appears in documents as Coledizi, Cholidici, Colidiki and Colidici; the town Colidici mentioned by Dithmar is the modern Kolditz on the Mulde, while their other town of Kesigesburgh, according to Leutsch, is Guetz or Quetz, near Landsberg. Pertz identifies it with Kothén (*id.*, 602). While the Colidici bordered on the Susali on the west, the latter were in contact on the east with the Sitizi, so called apparently from a town Citice on the Elbe, in the land of the Nizizi (*see* Spruner's map). The name occurs as Zitici, Cicitze, Citizi, Zitrici or Zittici, etc., and it may be compared with those of Ziticina in the land of the Wends, Zitomu, in Russia, etc., etc. (*id.*, 602). Sucha, Olesnik, Domië, etc., are named as towns of the Sitizi.

South of the small gaus we have just described was that of the Khutizi or Skudici, situated west of the Dalameni, and the Siusli extending as far as the Saale, and watered by the Elster and the Mulde. The district is now known as the Mark of Merseburgh and contains the famous city of Dresden. Dithmar, in 892 and 970, speaks of it as Khutici. In a deed of Otho the Second of 974, it is called Khutizi, in another of Otho the Third, 997, also Khutizi. In one of Henry the Second of 1004, there is mention of a town of Khut, according to Leutsch, either Gotha or Gauth. In 1013 we have Gudici, in 1045 Guodizi. The town called Skudici by Dithmar is the modern Schkeuditz. In deeds of 1004 the Gau is called Scekeudiz and Schutizi; and in another of 1041 we have the form Zcudizi (Schafarik, ii, 605 and 606). The variation of name has led Leutsch to make two gaus out of it, but this view seems very improbable and is discarded by Schafarik and the author of Spruner's map. With this name may be compared the town of Shudy in Lithuania, two villages called Khutce in the district of Lublin and Zachutici in the government of Minsk.

The south-eastern part of the land of the Northern Serbs which lay east of the Saale, south of the Mark of Merseburgh, and was watered by the Upper Elster, formed a compact district known as the Mark of Zeitz, so named from the town of Zeitz (called Ciza and Cisa in mediæval documents). This district was known specifically as Serbsko, or the Serbian land. In documents of the year 800 it is called Sarowe, and is thus referred to: "Regio provincialis sita juxta Boemiam Sarowe nuncupata;" and again, "Provincia Sarowe dicta . . . quidam comes de Boemia nomine Thacolf contulit" (Schafarik, ii, 606, note 2). In a deed of 1040 we have mention of a gau Zurba, and in 1136 of Swurbelant, which both refer to this district.

This land of the Serbs, or Mark of Zeitz, comprised several minor gaus, which are clearly marked on Spruner's excellent map ("Series of the German gaus," Number 4). These were respectively known as Weta, Weda, or Weitaha in the north-west corner, then bordering it on the east, Tukhurini, again further east on both banks of the Elster, Puonzowa, then Plisni on the Plisa or Pleitse; Zwentokowa or Zwikowa (Zwickau); Gera or Geraha (probably originally Gora); Strupenice; Orla, otherwise called Brisingau and Dobnawa.

Near this district Schafarik would place the three gaus of Werenofelda, Fergunna and Genewara, mentioned in the campaign of Charlemagne's son Charles against the Bohemians in 805 and 806 in the Chron. Moissiac., and he identifies two of these gaus with the Verizane and Fraganeo of the Bavarian geographer, the former of which contained 10 towns, and the latter 11. The exact situation of these gaus is not known.

Pertz would identify Werenofelda with a gau Weri on the right bank of the Elbe, opposite Magdeburg, Fergunna, with some district on the Eger in Bohemia, and Genewara as a corrupt form of Weri-Gau. Ledebur identifies Werenofelda with the land on the River Werra, Fergunna with Würgau on the road from the Fichtel Mountains to the River Eger, and Genewara with Kamoren or Gommern in the neighbourhood of Magdeburg. Lelewel connects the Verizane of the Bavarian geographer with the towns of Brisen and Brisnik on the Neitze in Lusatia. The name Fraganeo or Fergunna is perhaps the Gothic fairguni, Scandinavian fiörgyn, Anglo-Saxon firgen ("mons, regio montana") with which the Slavic Perun and Lithuanian Perkūnas are connected.

Besides the larger colonies of Slaves which we have described there were many smaller settlements of them west of the Elbe, which are very interesting as sporadic elements in the general population of Central Europe. The small colonies were the result of the wars of the Franks and other Germans with

their Bohemian and Sorabian neighbours, when a large number of prisoners were naturally carried off, who were planted as colonists in various districts. So great must have been the number of these, that, as is well known, a Slave came to mean in German, a person in a servile condition. As early as the year 740 we find Saint Boniface re-peopling the waste districts in the diocese of Wurzburg and of the monastery of Fulda with Slaves, and in 751 Pope Zacharias granted him permission to levy taxes on those who were still unbaptized (Schafarik, ii, 607). Thence we find that in the registers of Fulda, Slaves are mentioned among its dependents in the woody districts round the monastery, such as in Ludera, Luterembach, Summerde, Hagen, Vargelaha, Lupenzo, Nitharteshuson, Salzunga, Gerstungen, Cruciburg, Heringen, Sulaha, Ugesberc, Geysaha, Bezzingen, Biberaha, Nuenburc, Rora, Engelmarestat, Otricheshusen (Schann. Buchonia vetus. Schoettgen et Kreysig Diplom. i, 46-48, cited by Zeuss, 646).

The name Wend occurs elsewhere in this district; thus, in a deed of 958: "Winatsazen et in tribus villis Sclavorum et Eitenwiniden in pago Salagowe" (Schoettgen Diplom. i, 18). Vuinidoheheim, Winithoheim, and the phrase "in pago Grapfelda . . . in loco Vualahramesuuinida" occur in others (*see* Zeuss, 646). Of Slaves in the district of the Lower Hartz near Mansfeld we have mention in a deed of 973, in which there is the following interesting notice: "De possessionibus S. Bonifatii martyris præscriptus venerabilis abbas Vuerinharius pari mutuacione concambii dedit in jus et proprietatem S. Mauritii martyris quicquid in Frekenleba et Sekkensteti, Arneri, Lembeki et Faderesrod, Kerlingorod, Mannesecsfeld, Duddondorf, Rodonvualli, Menstedi, Purtin et Elesleiba aliusque villis, villarumque partibus, *quas Slavuanicæ familiæ inhabitant . . . visus est habere*" (Schann Traditt. Fuld. 241; Zeuss, 647).

We also read in old deeds of a place called Ernesteswinideni in the Valley of the Aisch, of Wolfheresuuinidon in Thuringia, Nidarun Winida in Carinthia, Moinuwinida or Moinvuiniden and Nabauuinida in the Fichtel Mountains, and Adalhartsuineden Gerhartiswindin and Kotzenwinden elsewhere; while on the Aisch there are still found Brodswinden, Ratzenwinden, Poppenwind, Reinhardswind, etc. (*Id.*, 646, note.)

West of the Saale we meet with the following Slavic names in a deed of 993:—Riedauuizi, Drogolisci, Siabudisci, Osutiscie, Cedlisciani. In another of 937 we read: "In loci marca, quæ Smeon dicitur XII familiæ Sclavorum cum territoriis quas ipsi possident." In another of 955, "Villa Spileberg quæ etiam alio nomine Sibrouuici dicitur, in marca quoque quæ Smeon nominatur sita." This Smeon is the town of Schmon near

Querfurt. These names are more numerous in the country of the Upper Main on the Rednitz and the Aisch, which district was called the Slave-land, and its inhabitants Wends of the Main and Rednitz.

Thus we read in a document of Louis the German, dated 864: "Qualiter . . . dominus Karolus . . . episcopis præcepisset, ut in terra Sclavorum, qui sedent inter Moinum et Radantiam fluvios, qui vocantur Moinuvinidi et Ratanzuvinidi una cum comitibus qui super eosdem Sclavos constituti erant, procurassent, ut inibi sicut in ceteris Christianorum locis ecclesiæ construerentur, quatenus ille populus noviter ad Christianitatem conversus habere potuisset, ubi et baptismum perciperet." They are called Moinuvinida and Radanzuvinida in the foundation charter of Arnulf, dated in 889. In a deed of 824 we read of the town of Thurpfilun near the bank of the Moin "in regione Slavorum." In another deed of 911 we read of a place called Fihuriot as belonging to the king "cum cæteris Sclavienis oppidis illuc juste conspicientibus." In another of 796 we have the phrase "tertiam partem in Sclavis in Heidu." In the Valley of the Aisch, after speaking of Hohenstat near the River Cisca (*i.e.*, Eisga or Eisca), we are told that in the same Slavic region ("in eadem Slavorum regione") the towns of Tutenstete, Lonrestat, Wachenrode Sampach, together with their Slave inhabitants "simul cum inhabitantibus Sclavis" were accustomed to pay annual dues to Fulda; similar dues were payable by 40 mansi of the Slaves living in the town of Medabah (Zeuss, 647-648).

But as Zeuss says, the Slavic element in this district must have been subordinate to the German or was soon absorbed by it, for the topography is Teutonic, Thurpfilun (= Durfilin, Dörflein, now Dörfleins); Fihuriot (Veehried, Viehreit, now Vieret), and Heida, all on the Main near Bamberg are Teutonic names. The names in the Valley of the Aisch, as well as two words from that district preserved in a deed of 889, are German also.

These words have been discussed by Grimm (*Rechtsalterth.* 298), and occur in the following sentence: "Decimam tributiq̃uæ de partibus orientalium Franchorum, vel de Sclavis ad fiscum dominicum annuatim persolvere solebant quæ secundum illorum linguam steora vel ostarstuopha vocant" (Zeuss, 648).

The topography of the country immediately west of the Saale is a striking proof of the extent to which Slavic colonies had planted themselves there. Thus we find such Slavic names as Leugast (in old documents Lubegast), Schorgast, and Trebgast in the upper valleys of the Main, and probably also in the same



neighbourhood we have mention in a deed of 1024 of a villa *Slopece* in pago Ratenzgowe (now Schlop on the River Sclop) with which may be compared the Polish Slupce, near Gneissen; and again in a deed of 1055, a "vicus nomine Silewitze . . . situs in pago Ratenzgouue," now Selbitz on the same river.

On the Rodach we have Graiz (formerly Grodeze, Grodiz), which is the same name as Graiz on the River Elster, Redwitz, which is like similar names on the Saale; Zedlitz, which is like the Polish Scedlec and the Bohemian Cedleczany, derived from the Slavic siedati to settle, and equivalent to the Anglo-Saxon Saetan, and the German setzen; Schwurtitz, which is a palpable corruption of Servitz; Schmöltz, a similar corruption of Smolensk; Kups formerly Khubitz (Zeuss, 649, note). As to the remoter Slavic name in Franconia, Zeuss mentions Graiz, Mitvitz, and Mödlitz on the Steinach; Zedlitz and Kups (upper and lower) near Staffelstein, Scheslitz, Zwernitz, (originally probably Swerince, and to be compared with Schwerin) Kreussen (anciently Crusni and Khrusin), Oelsnits (upper and lower) derived from the Slavic olsza the elder, whence also the Oelnitzbach, near Berneck, Doberschitz, Döberein, Kulmain, the mountain Kulm, near Neustadt, and Dolnitz. (*Id.*, 650, note.)

It would seem that the greater part of Eastern Franconia, and the districts of Wunsiedel, Waldsassen, Tirschenreut, and Bernau, as well as the greater part of the land on the Naab, the Rednitz and the Upper Main about Baireuth, Bamberg, Würzburg, and Nürnberg was in the ninth and tenth century occupied by Slaves. A large number of these settlements belonged to the Poradnitzzi or inhabitants of the Rednitz, of whom we read in the life of St. Emmaramus: "Tradidit cuidam Thuringo in finibus Parathanorum, ad id temporis crudelium paganorum." South of the sources of the Rednitz is a place called Wilzburgh, in Old German Wiltenburgh, perhaps derived from the Slavic Wiltzi. It was not till the twelfth century that the pagan Slaves in this district were converted, although it was numbered among the German gaus as early as 889 A.D. The see of Bamberg was founded in 1007, and the same year it was decreed at the Synod of Frankfort, "ut paganismus Sclavorum inibi (at Bamberg) destrueretur." In the acts of the Synod of Bamberg in 1058, we read: "Erat enim plebs hujus episcopii utpote ex maxima parte slavonica." In 1111 we find Arnold, Bishop of Halberstadt, writing to Henry, Bishop of Bamberg: "Totam illam terram pene silvam esse, Sclavos ibi habitare," etc.; and in old deeds of Bamberg, the Slaves are frequently mentioned, as in the following curious sentence: "Quædam mulier Gothelindis nomine, cum esset



libera, sicuti Sclavi solent esse . . . delegavit ad altare," etc. The dialect and costume, the appearance and customs of the people of the district betray their Slave origin (Schafarik, ii, 609).

In the north-western part of Bavaria, in the district known as the Nord gau, there is marked in one of Spruner's maps of the German gau, a district of Culm. This is doubtless the same which Zeuss wrongly puts in Thuringia, and which is thus named in a deed of 966: "In villis et marchis subnotatis scilicet in pago *Culm* et in villa *Culm-naha* et in *Urbah* et in villa *Bertellesrode*" (Zeuss, *op. cit.*, 649). This Culm or Khulm is doubtless derived from the Slave Chulm or Chlm, a mountain. The name occurs also in the town of Culmbach on one of the upper streams of the Main. While Cranach, not far off on the Khremnitz, a feeder of the Rodach, is similarly derived in all probability from the Slavonic Chraniti mountains, as in the district of the Craina in north-western Bosnia. We thus find north-eastern Franconia thickly sown with Slavic names. If we cross its northern boundary into Thuringia, we shall meet with a gau called Winidon, no doubt named from the same people. Within its borders is marked on Spruner's map the settlement of Wolphereswinidon.

If we advance further west and south, we shall find sporadic Slave names in various parts of Germany. A considerable colony of them also is found in Switzerland. This last colony is mentioned in old documents—in one with the phrase "*homines qui vocantur Wiinde*" (*Actâ Murensia* in *Kopps Vindiciae*, Schafarik, ii, 609). Thence we get in Switzerland such names as Khunitz, Bumplitz, Czernek, Gradetz, Krimentza, Luc, Visoye, Grona, etc. It is also a very curious fact that the descendants of the people whom the Swiss call Huns, and who are settled in the Valley of Anniviers, six miles from Sitten in the canton of Wallis (*i.e.*, canton of the Welsh or foreigners), still use a corrupt Slavic dialect. They are popularly looked upon as descendants of Attila's Huns (Schafarik, ii, 609). Thus we find the Slaves widely scattered over the countries west of the Elbe. It is not meant that all these Slaves were of the Serbian stock. Of this we have no evidence, nor is it in fact probable, for the Huns and other invaders probably were followed by Slaves of other stocks, but there can be small doubt that the greater part of them were emigrants from the country east of the Elbe, where the nearest Slavic settlements were, and which, as I have shown, were Serbian. Let us now return once more to the east of the Elbe, and examine the country I have identified with White Croatia, which as I believe was largely conterminous with the well-known district of Lusatia

or Luzice. The people of Upper Lusatia call themselves Srbje or Serbians, and those of Lower Lusatia, Serske, another form of the same name (Zeuss, 642).

The gau Luzice, according to Schafarik, derives its name from "luh," a meadow or flat low ground (*op. cit.*, ii, 595), and according to Zeuss from "luzha" a bog. (*Op. cit.*, 645.)

This gau of Luzice answered nearly to the well-known modern district of Lower Lusatia, that is to the ecclesiastical districts of Dame, Schlieben, Luckau, Kirchhain (Kustkof), Kalau, Kottbus (Chotebuz, Khocebe), and Spremberg (Grodek). The name was afterwards extended much beyond these limits—as far as the Oder on the north and east, comprising the gaus of Slubjany, Lubusany, Zarowany, Trebowany, etc., and finally included the southern districts of the Milciani and Nishani or Nissen. When it had reached these limits, Lusatia was created a Margraviate, and is a well-known name in mediæval history.

The original gau whence the name thus spread is first mentioned by the Bavarian geographer, who calls it Lunsizi, and tells us it contained 30 towns. In deeds of the reign of Otho the First, dated in 949 and 961, it is called Lusici; by Reginon in 963, Lunsinzani; by Widukind of Corbey in 963, Lusiki; by Dithmar in 963 and 1005, Liusizi, Luzici, and Luizizi. In deeds of 965 and 967 of the Emperor Otho the First, respectively Lusici and Lucizi; in one of Pope John the Thirteenth of 968, Luzici; others of Otho the Second of 973, Lusice; and of the Emperor Henry the Second in 1004, Lusici. Within it were the towns of Tribus or Trebac (German Drebkof) named in 1004, Luibocholi or Libehol, Mroscina, Grothisti or Grodzisce, Liubsi, Zlupisti, Gostewissi (*i.e.*, Kottbus), Dobraluh (beautiful meadow) mentioned in 1005, and Ciani in 1015, etc., etc. (Schafarik, ii, 596).

On the north-western edge of Lower Lusatia is the small town of Goltsen, which is called "Castrum Golzin" in a deed of 1301; a neighbouring stream is called the Goltze. These names explain the mention of a tribe called the Golsensizi by the Bavarian geographer, among whom he says were five towns. The name may be compared with a castle in Russia called Golsany (*id.*, 596). North of the Luzici was the gau of Selpoli or Selpzli, called Selpzuli, in a deed of Otho the First, of the year 948. In others of 961 and 967, it is called Selpoli, etc., etc. A river flows through the district called the Schlubbe or Slube, whose name Schafarik connects with that of Selpoli. The true form of the tribal name, however, he makes to be Slubeani or Slubliani. Between the Slubeani and the Lusizi, on the Upper Spree and Neisse, was a small gau, called Nissa, mentioned as

early as the year 965 in a deed of Otho the First as Niciti, and by Dithmar in 1005 as Nice. (*Id.*)

North-east of the Slubiani or Selpoli were the Lubushani, the inhabitants of the town of Lubusha, the modern Lebus and its neighbourhood. This clan was called Liubuzzi, by Adam of Bremen, and Leubuzi, by Helmold. Their country, which was long subject to the Poles, was the seat of a bishopric (*id.*). The Lupoglani or Lupiani, called Lupiglaa by the Bavarian geographer, and owning, according to him, 30 towns, lived according to Lelewel on the river Lupa, a tributary of the Neisse; a tributary of the Elster bears the same name, while there is a river Lupof in Pomerania, and another called Lupogolowa in Russia; an Illyrian Castle and Lordship Lupoglava, the German Mehrenfels, and two Croatian villages, one in the district of Agram, and the other in that of Warasdin. This all goes to prove that the Lupoglani belonged to the eastern branch of the Slaves and were probably a section of the White Croats.

In the east of Lower Lusatia is the town of Sorau or Sarof, which gave its name to the gau of Zara, named as early as the time of Dithmar. It was bounded, according to Leutsch, on the west by the Spree and the Neisse; on the north by the Oder, on the east by the Bober, and on the south by the land of the Milciani. The town of Trebula or Triebel, in Lower Lusatia, probably gave their name to the Trebowani, mentioned in the foundation deed of the archbishopric of Prague, and by Cosmas, with the Chruati, the Boborani, or inhabitants of the Bober, and the Zlasane or Silesians (*id.*, 598), which last folk we shall consider in a future paper. South and south-west of these several gaus, which probably constituted White Croatia proper, we have two others, named respectively Milciani and Dalamensir, which were very closely connected, and form the modern province of Meissen. We will now turn to them. Immediately south of the gau of Lusize were the Milciani, who occupied the country now forming the province of Upper Lusatia, between the Bohemian mountains and Lower Lusatia. They are first named by the Bavarian geographer, who calls them Milzani, and tells us their land contained 30 towns. They occur very often in the accounts of the war between the Germans and the Poles, under Boleslaf Chrobry. They are called Milzeni in 922; Milceni in 946; Milcini in 1000, and Milzieni in 1002, by Dithmar. Their country is called Miltzæ, in a deed of Prince Metschislaf in 991, Mizlavia and Milzavia, by Adelbold in 1002 and 1003; Milkcani and Milzania in 1003, in the Chron. Saxo.; Milznia in 1004, in the Annal. Saxo.; Milsa in a deed of 1071, and by Cosmas, in the foundation deed of the Prague arch-

bishopric in 1086, Milciani; in a document of 1131 the district is called Milesko; in a deed of 1144 it is called Miltze, in another of 1165 Milzana, etc. All these forms Schafarik derives from the Slavic Milcin, plural Milci, or from Milcanin, Milcenin, plural Milcané, Milcene, Milcko, or Mileka; and as I shall show presently derives them from the Lettish and Lithuanian Milzis or Milzins (Schafarik, ii, 599). The chief town within the gau was Budusan, the modern Bautzen (Zeuss, 645). The name of this gau occurs also in Dacia. Thus we read in the Bavarian geographer: "Isti sunt qui juxta eorum fines resident. Osterabtrezi (*i.e.*, the southern Obodriti), in qua civitates plusquam C sunt, Miloxi in qua civitates LXVII." They lived, probably, on the river Milkof, in Moldavia, and gave their name to a bishopric first mentioned between 1370 and 1462 (Schafarik, ii, 202-3). Not far from here, in the modern Bessarabia, is a village called Milceni. We also have a tribe of the same name, and called Mileggoi, by the Greeks in the Peloponnesus. (*Id.*, 228.)

Near neighbours of the Milciani were the Dalamensi. They perhaps formed a section of the Milciani, as the name by which they are known in the Chron. Moissiac., where they first occur in the year 805, is Demelchion, which Schafarik suggests may be "de Milciene." In the Annals of Fulda, in 865 and 880, they are called respectively, Dalmatæ and Dalmatii. Alfred the Great calls them Dalamensan, and the Bavarian geographer, Talaminzi. He says of them: "Juxta illos (Serbos) sunt quos vocant Talaminzi qui habent civitates xiiii." In a deed of 981 they are called Dalminize, and are given the alternative name of Zlomokia. Dithmar, in 908, calls them Delemenci, and also Glomazi, and Zlomizi, and he gives as the explanation, "Provincia quam nos teutonice Delemenci vocamus, Sclavi autem Glomaci appellant;" and in a document of Otho the Second, of 981, we read, "Dalminize seu Zlomkia." The Slavic form of the name survives in "Lom-matsch," no doubt formed from Glomaci. As a lake in this district was called Glomuzy, it is not improbable the tribe took its name from it—a name derived probably from the Polish "glom," flowing or fluid. It may be remarked that one of the old towns of the district was called Serebez, now Schrabitz, which is probably connected with the name Serb. Both the Milciani and Glomaci, whose joint country formed the Mark of Meissen, were closely connected in their history with the Bohemians.

There still remains for us to describe a small gau occupying both banks of the Upper Elbe under the Bohemian mountains and between the Milciani and Dalamensi. This was called Nissenen, a name which, like that of the gau of a similar name already mentioned, was derived from Niz, Nizina, lowland or

valley. It is called Niseni and Nisani in 984 and 1004, by Dithmar and Nisane in later documents. The name may be compared with that of the famous town of Nish and a river of the same name in Serbia and Bulgaria.

This completes our survey of the topography of the Northern Serbs, but we have still to deal with a very embarrassing fact. There is no mistake about the conclusion that is forced upon us by the evidence we have here adduced, and the historical evidence that we shall adduce presently, that these Northern Sorabians and Obodritans belonged to the Eastern division of the Slaves. But when we examine the linguistic evidence, we are met with a profound difficulty, which has embarrassed all inquirers in this field. The language of the Sorabians and other Polabian Slaves belongs not to the Eastern, but to the Western division of the Slaves. In this inquiry we have three sources of evidence, namely, the well-known remains of the Lusatian tongue, those of the Drewanian language, and the scanty list of names, etc., in use among the other Polabian Slaves, and preserved in the Latin Chronicles. The evidence of all three is practically the same. The Lusatian language, which falls into two well-marked dialects, is placed by the two excellent authorities, Dombrowski and Schafarik, between the Polish and the Bohemian; but inclining more in its deeper vowel, o, and its frequent sibilants for d and t, to the Polish, and not marked by the Bohemian nasals (Dombrowski, quoted by Schafarik, *op. cit.*, 618, note 1). The Upper Lusatian is more like Bohemian, and uses h for j; the Lower Lusatian, still spoken about Kottbus, is more like Polish, and retains the g (Zeuss, *op. cit.*, 645, note).

The modern Lusatians, as Schafarik says, are clearly descended from the ancient Sorabians and Milciani. That their language was altered by the short subjection they were under to the Poles and Bohemians is hardly probable, and the fragments of old Lusatian forms which survive in the chronicles are essentially the same as the modern language (Schafarik, ii, 618). The Drewanian language, which survived as a spoken tongue until the seventeenth century, and of which we have considerable remains, may perhaps be taken as a specimen of the old tongue of the Obodriti. Although it differs in some respects from the Lusatian, it belongs, nevertheless, essentially to the Western, and not to the Eastern division of Slave tongues. Of this, Schafarik has collected ample proofs, as also of the similar relationship of the topographical and onomastical words belonging to the various Polabian Slaves, which occur in the chronicles (*op. cit.*, ii, 619-624). The only explanation of this paradox which seems reasonable is either that the Sorabians and other Polabian



Slaves were a second invasion superimposed on a previous layer of Western Slaves which already occupied this area, or else that the common element which these Northern Serbs had with the Southern ones was not in the mass of the people, but in the upper strata, which, as I have shown reason for believing, were not of Slavic but of Hunnic blood, and that the common name covered not so much a homogeneous race, as a common caste of leaders belonging to one stock. This, however, can only be offered as a tentative conclusion.

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### *Section II.*

Having examined the topography of the Northern Serbs and their relatives the Obodriti, we may now try and track out as far as we can the earlier part of their history. In doing this we shall have to reconsider somewhat the view urged in the two former papers, on the authority chiefly of Schafarik.

That the Croats and Serbs were invited to settle within his borders by Heraclius, about the year 634-640, we have no reason to doubt. The question as to whence they came from is one, however, that admits of some controversy. The problem is a limited one. There is no disputing that they came from the land beyond the Carpathians, but the question remains whether they came from Gallicia or the country further west.

Now the migrations of races are marked by certain limiting circumstances; whole peoples do not migrate over impassable ranges of mountains, nor, except under very peculiar circumstances, do they cross deserts or wastes. The route followed by many emigrants has been consequently the same. In the present instance we are to some extent limited in our choice by the configuration of the country north of the Danube. When we first meet with the Serbs it is in the neighbourhood of Belgrade. It is with the Governor of Belgrade that they conferred about recrossing the Danube. Nor have we any traces of Serbians in Wallachia, except in its extreme western part. Now if the Southern Serbs had migrated from Gallicia, marched through the Bukovina and Moldavia, and rounding the eastern buttresses of Transylvania had then crossed Wallachia, and thus reached their present country, we should assuredly have expected them to leave some traces of their passage; and, further, they would in that case, in accepting the invitation of the Byzantine Emperor, have probably entered Bulgaria. But not only is this not the case, but we actually find that Bulgaria formerly stretched considerably more to the west than it does now, and that the Serbs have been pushing their way eastwards as well as south-



wards. To anyone who examines the problem as it ought to be examined, with the map before him, there cannot be much doubt that the route here mentioned was not that followed by the migrating Serbs.

Such an examination will make it very clear that the invaders came not from Wallachia, but from the great Pannonian plain. Let us turn our view there shortly. Opposite to Serbia, north of the Danube, we have a district once occupied by a section of the Obodriti. These Southern Obodriti are first mentioned by Eginhardt. On the destruction of the kingdom of the Avars by Charlemagne, peace was made between the Bulgarians and Franks, who by this destruction became close neighbours. But they were not many years before they quarrelled, and the cause of quarrel was that three Slavic tribes, who had been allies, and no doubt dependants of the Bulgarians, allied themselves with the Franks and entered their borders. These tribes were the *Obodriti*, the *Gudusciani*, and *Timociani*, the two latter tribes under their chief Bornas. This was in 818 (Eginhardt *Annales*, ad an.). These Obodriti were settled on the Danube, and gave its name to a large district or gau in Southern Hungary, known as Bacs-Bodrog, in Slavic Bodrocka stolice (Schafarik, ii, 208), so called probably from the indigenous name of the Obodriti, namely, Bodrizi. Schafarik suggests that a section of these Obodriti gave their name to Bodrok and the Bodrotschka, in the district of Zemplin. This was long ago suggested by D'Anville (Hampson's "Dissertation on Alfred's Orosius," 39), and has received the high sanction of Schafarik himself. This gau or Comitatus of Bacs Bodrog is bounded on the south and on the west roughly by the Danube, on the east by the Theiss, and on the north by the country of Pesth Solt. Schafarik, however, makes the Obodriti occupy a much wider district than the present country of Bacs Bodrog, and tells us they stretched from the junction of the Trave with the Danube, right across the Banat, and as far as the land of the Bulgarian Severani (*op. cit.*, ii, 208). These he makes their limits north of the Danube. South of that river he places them in that portion of Serbia which has only been Serbian in late mediæval times, and which is bounded on the west by the Serbian Morava, and on the east by the Timok. These limits are not improbable. They coincide north of the Danube with the Austrian province called Woiwodia, and south of the river with Eastern Serbia; the latter bounded on the north by the River Maros and the proper land of the Magyars; on the east by that of the Rumans of Transylvania; and on the west by the Serbians of Slavonia and Syrmia. Under the year 824, we read in Eginhardt's *Annals* that envoys went to Louis the Pious from the

Obodriti, who were called Prædenecenti, and who were neighbours of the Bulgarians, who dwelt in Dacia, near the Danube (Zeuss, 614). D'Anville suggests that this name still survives in a canton of the Banat of Temeswar, named Pardan (Hampson, *loc. cit.*). Schafarik and Zeuss agree in identifying the mediæval Branitsshewo with this name. Branitsshewo was a town and principality on the south of the Danube. This town was called Viminacium by the Romans, and was situated on either bank of the River Mlawá, where it falls into the Danube a little east of the Morava, and where ruins still remain, those on one bank being called Mlawy Branicewac and those on the other Rostolac (Schafarik, ii, 209; Zeuss, 615). In the German accounts of the Crusades in the eleventh and twelfth centuries, the district from Belgrade to Nish, where Branitsshewo was situated, was styled Bulgaria or "Silva Bulgaria." On the conquest of Bulgaria by the Greeks in 1018, it fell into their power, and the town of Branitsshewo is mentioned by Theophylactos of Achrd in 1081, and by Anna Commena in 1114. In the first part of the twelfth century the town was subject to Hungary, but soon reverted again to the Greeks. In 1154 it was again conquered by the Hungarians. In 1172 it was visited by Henry the Lion, on his journey to Palestine, etc. It is probable that it was incorporated with Serbia about 1189, when Sofia, Semlin, Schtip, Nish, etc., were conquered by Nemanja. The Tzar Asan tells us that in his time it belonged to Bulgaria, but in 1275, in the reign of King Dragutin, it was certainly Serbian, and is often named until the Turkish conquest of 1459. It was the seat of a bishopric, and is styled Ducatus in old Byzantine and Hungarian authors. Its name still survives in popular memory, as in the song, "Po Kucewu e po Branicewu," and the district of Posharezk is still called Branitschewo (Schafarik, ii, 210).

Let us now turn to the two tribes who are mentioned as having deserted the Bulgarians jointly with the Obodriti. These were called Guduscani and Timociani. The former name is, according to Schafarik, the German form of the Slavic Kutshani, the inhabitants of Kucewo or Kucajewo, the district of the Kutshai Mountains, south-east of Branitsshewo. Kuc, Kuca, Kucaj, Kucaja, Kyc or Kyca, mean mountains in the various Slavic tongues, and is perhaps the real meaning of Kauk in Kaukasus. There is also a Gacko called Gutzika by Constantine Porphyrogenitus, in Croatia. The mountains and district of Kutshai, south-east of Branitsshewo, are frequently mentioned in Serbian and Hungarian history in the twelfth to the fifteenth century; on these mountains was situated the village of Kucajn.

The Timociani, it is agreed by Schafarik, Zeuss, and others,

simply mean the inhabitants of the Timok, on the frontier of the modern Serbia and Bulgaria. All this district was in the ninth century a part of Bulgaria.

The River Morava has two head streams which bi-fork near Warwarin; one of these is called the Serbian Morawa, and the other the Bulgarian Morawa. The Serbian Morawa has a very large tributary named the Ibar. The district between the Ibar and the Bulgarian Morawa, and that on either side of the Morawa itself till it falls into the Danube, was only added to Serbia by the victories of the Zupan Nemanja, who reigned from 1159–1195. In this district the dialect still differs from that of Serbia, as in saying "ny" for "nas, nam," etc. (Schafarik, 212, note 2). The inhabitants of the whole district were probably included with those of Western Woiwodia in the generic name of Obodriti. These Obodriti were no doubt of the same race as the Northern tribe, as I have previously argued, and like them were not only close neighbours, but also near relatives of the Serbians, and formed in fact but fractions of the same stock. The importance of these Southern Obodriti may be gathered from the fact that the Bavarian geographer, who calls them Osterabtrezi, tells us they possessed more than 100 towns (Schafarik, *op. cit.*, ii, 208, note 3). We also find traces of the occupancy of Serbs proper, north of the Danube. A portion of the district of Little Wallachia was formerly known as the Banat of Krajova, and in earlier times as the Banatus Zevriensis (*see* Spruner's maps, 75 and 89). In the thirteenth and fourteenth centuries this district was governed by a Ban of its own, who was at first subordinate to the Bulgarians, and later to the Hungarians. When Bela the Fourth of Hungary, at the instigation of the Pope, marched against the Bulgarians, he incorporated the Severian Land ("terram Zemram, Zevram, or Zevrin") and created it a Bishopric. In 1237 he wished to make over this district ("terra de Zevrino") to the Knights of St. John with the obligation of guarding it against the Tartars (Schafarik, ii, 203).

This arrangement was not carried out, and the district continued to be ruled by Hungarian Bans, some of whom are mentioned as early as the thirteenth century. Below the outfall of the Topolnitza into the Danube there is still a village called Kimpul Sewerinuli by the Wallachians. Not far off is the village of Sewirineſt on the Kossum, which retains traces of a Serbian colony. We thus find that the Serbs and Obodriti once occupied the country north of the Danube, from below the Iron Gates to the Save. West of this we know, as I showed in a former paper, that the Croats once occupied the land between the Save and the Drave, and the border land of Slavonia. All

this points to the conclusion that when the Croats and Serbs invaded the borders of the Eastern Empire they came in from the north. Now it is equally clear that this district north of the Danube was in classical times occupied by an entirely different people, while we have express testimony that the Croats and Serbs came from White Croatia and White Serbia in the north. Let us now follow them there. On turning in the direction of the Carpathians we find almost directly north of the district of Woïwodia, and separated from it by the Great Hungarian Plain, a district watered by a river *Bodrog*, a large tributary of the Theiss. This river flows through the Hungarian county of Zemplin, and gives its name to the district of Bodrotschka; a little further west again we have in the county of Torna, the Bodra, a tributary of the Sayo. We have in these names a very close relationship with the name Obodriti or Bodrizi. The name Zemplin is nearly connected with that of Semlin on the Danube; the county of Torna with the canton Torontal in the Banat, and the River Topla with the Toplitz, a tributary of the Bulgarian Morawa, and I have small doubt that the Obodriti came from this part of the Carpathians, and migrated along the Valley of the Theiss.

In regard to the Serbs it may be that they came in by the same route, or it may be, as is perhaps more probable, that they followed the valley of the Danube, and entered Central Europe through the gap of tolerably flat country that separates Bohemia from Hungary, and therefore from Silesia. The two races came respectively, according to Constantine Porphyrogenitus, from White Croatia and White Serbia. Let us now try and realise rather more closely the meaning which the historian-emperor attached to these names. Speaking of the Croats before their advent on the borders of the empire he says they then lived beyond Bagibaria, where *are now* the Belo Chrobati; again he says: "The rest of the Chrobati dwelt towards Francia (*i.e.*, the land of the Franks) and are called to this day Belo Chrobati, or White Chrobati, and are subject to their own princes. They are, however, dependent on Otho the Great, King of Francia and Saxonia, and having been baptized they are in close alliance with the Turci" (*i.e.*, the Hungarians). Again, in another place he says: "The Chrobati who live in Dalmatia are derived from the baptized Chrobati who are called White, who live beyond Turcia (*i.e.*, Hungary), near to Francia, and are near the unbaptized Serbian Slaves" (Stritter, ii, 389 and 390). Constantine reigned from the year 945 to the year 959, and was a contemporary of Otho the Great. As we shall see presently, Otho the Great and his predecessor, Henry the Fowler, had after continuous fights with their Slavic neighbours entirely

subdued them. The bishoprics of Oldenburg, Havelberg, and Brandenburg were founded to convert them. The Slaves were everywhere subdued and converted to Christianity. They, however, retained their own princes, who were afterwards created margraves, and we may compare with Constantine's statement those of Widukind and the other German contemporary writers. "Baptizatus est totus populus. . . . Slavonia in XX pagos dispartita . . . pax fuit continua; Slavi sub tributo servierunt" (Schafarik, ii, 530, note 4).

Bagibaria or Bavaria then stretched eastwards as far as the Danube (*id.*, ii, 244), so that we can to some extent limit the problem of finding White Croatia. It was beyond Bavaria; it was included in the districts subdued and Christianized by the Saxon emperors; and it was beyond Hungary. In his translation of the history of Orosius, Alfred the Great, who wrote about half a century before Constantine, tells us that east of the Dalamensan lived the Horithi. Horithi has been generally accepted as a form of Croat. In the foundation charter of the bishopric of Prague there is mention made of two Chrovati, doubtless meaning two gaus of the name, as follows: "Novum antiquo fere ejusdem tenoris addit privilegium . . . primitiva illa: parochia cum omni terminorum suorum ambitu . . . ad aquilonalem hii sunt termini: Psovane, Chrovati et altera Chrovati, Zlasane, Trebovane, etc." (Schafarik, ii, 444, note 2). I have already discussed these names. I am disposed to identify the White Croatia of Constantine and the Horithi of Alfred with Lusatia in its wider sense, and with Silesia. It is in conformity with this view that we actually find the people of these two districts called Serbs. Two villages on the Saale bear the name of Kerbetha, no doubt derived from these Northern Croats. The northern one, near Halle, is mentioned by Dithmar as Chruuati. The southern one, on the White Mountain, is named in the Chronicle of Halberstadt, published by Leibnitz, in the phrase, "ad transitum Salæ in Curewate" (Zeuss, 608). So much for the situation of the Northern Croats.

Let us now examine their history more closely. It is generally supposed that the Croats and Serbs were summoned by Heraclius from the north of the Carpathians, but this is not only very improbable in itself—for it is hardly likely that an Emperor of Byzantium should have had direct intercourse with those regions—but it is not so stated by Constantine. He says of the Croats that, headed by five brothers, they left their own people and came to Dalmatia where they fought with the Avars, etc. (Stritter, ii, 389); and in another place he says, "they fled to the Emperor Heraclius before the Serbi fled to him" (*id.* 393); and again of the Serbians he tells us how a strife



having arisen between two sons of their king, one of them with his people fled to the Roman Emperor Heraclius" (*id.*, 151). It was after they had arrived on his borders that he incited the Croats to attack and drive out the Avars, and gave them their land (*id.*, 394). We must therefore consider them as fugitives from their own country. I may add that one branch of the Croats, together with the kindred tribes of the Stoderani and the Suselzi, made their way to Carinthia and occupied a district on the Mur between the towns of Knittelfeld and Leoben, where a place called Kraubat still recalls their name. The district they occupied was known in the middle ages as the "Pagus Crauati," and is so called in a deed of Henry the First,\* dated in 954. In another of Otho the Second of 978, it is called Chrouat, and in a Salzburg deed of the eleventh century we read of "prædiæ . . . Chrouata et Runa" (Schafarik, ii, 337, note 5). Near the village of Windischgarsten, in the mountain range separating Steiermark and Upper Austria, we have a place called Hither and Further Stoder, while in the Krainian Alps, near Terglu, is a valley of Stoder, doubtless so called from the Stoderani. In Salzburg documents of 970 and 1045, we read of a wood called Susil or Sausal, situated on the River Lonsnitz in Lower Steiermark, a district still called Sausal; we also have a place called Ziusila, probably a corruption of Zuisila on the River Ipusa in Austria. These names are doubtless connected with the Syssele whom we have already described. (*Id.*, 337 and 338.)

I would remark that the Croats at present living in Moravia, in the territory of Lundenburg, and in Austria in the districts of Walcziz and Rabensburg, are emigrants from the Trans-Danubian Croatia, who first settled in their present quarters in the last century. (*Id.*, 500.)

We must therefore look upon the Northern Serbs at the beginning of the seventh century as occupying a continuous area from the Elbe along the northern borders of Bohemia and Hungary to the Pruth. What took place in Silesia and Lusatia took place in another district. It would seem to be almost certain that at the same period a similar series of Slavic tribes occupied the country between the Elbe and the Oder from Dresden to the sea, tribes closely related, and Serbian in blood. As the Poles made a gap in the continuity of the Serbs in Silesia, so a Polish race, the Wiltzi, found its way westwards to the middle Elbe, and thrust back this early Serbian colony until it consisted eventually but of a narrow strip along the right bank of the river with a large mass at its northern end

\* This must be meant for Otho the First, or the Great, 936-973. Henry the Fowler reigned 918-936.



forming the northern Obodritan kingdom; so that it would appear that at this date the Polish stock was bounded and cushioned round on the west and south by a layer of Serbian tribes which separated it on the one hand from the Germans, and on the other from the mixed races of Bohemia and Pannonia.

Our next inquiry is to discover whether this wide and continuous area had been occupied by Serbs from a very early date. We shall have no difficulty in concluding that in its western part at all events this was not so, but that the Serbs here were intruders.

There can be no doubt that the various Slavic tribes who occupied the right bank of the Elbe in the time of Charlemagne were intruders there, and were not indigenous. The classical writers have left us ample details about this district, but nowhere do the chief Slavic divisions, nor those of their constituent tribes, occur in their pages. This area they describe as in part occupied by a very different race—by Lombards, and Varini, and Angles, and Vandals, and Marcomians—all no doubt Teutonic tribes belonging to the great Swevic or Suabian stock, and these writers enable us to trace the migration of these various tribes from this their motherland.

It was only after they had migrated that these Slaves came in, the most westerly Slaves before the migration having been the Wiltzi, who in the time of Ptolemy lived on the Oder. At that time, therefore, the Germans were in immediate contact with tribes of the Polish stock. The intruders as I have said belonged to the eastern section of the Slaves, and not to the Polish section, and were at constant feud with the older Slavic occupants of the Oder, which is in itself tolerable evidence that they were intrusive strangers. Whence did they come? Clearly not from the west, which was a purely German area, nor from the north, which was Scandinavian, nor from the east, which was occupied by their mortal enemies the Wiltzi and other Polish Slaves. There remains, therefore, but the south, and I have no hesitation in saying they followed the course of the Elbe.

The next question is, When these Slaves invaded the Valley of the Elbe? This is complicated with another element. I have already suggested in the previous paper of this series that the Serbs were led by a caste of a foreign race, probably Hunnic or Alanic, and I remitted the consideration of the question to a future paper. We may now devote a short time to it. It is a very remarkable fact, *in limine*, that the Serbian dialect should have several words in it of Finnic origin as: Finnic, *suggu*, *suggu* (genus, cognatio), Serb, *sukun*—*djed* (atavus), *sukun*—*baba* (atavia). Finnic *katk* (pestis), Serb *kuga*, Polabian *koghe*, in

the Mecklenburg dialect koghe. Finnic pehle (anas, dom), Serb pile (pullus gall). Finnic pahhast (pravus), paliharet (diabolus), Serb pakostan pakost, etc. etc. (Schafarik, ii, 246 and 247.) It seems to me that this Finnic element can have no other origin than from the Huns, who probably led the race.

Again, it has almost universally been held that the name Croat is derived from Khrebet, a mountain chain, and is connected with that of Carpathian, and this was the view which, following Schafarik and others, I adopted in my paper on the Croats, but I am by no means so well assured of this view now. The name, if it were even a merely geographical one, would apply equally well to the Slovaks and the Northern Serbs as to the Croats; and it does not seem probable that one out of a series of mountain tribes should call itself "mountaineers;" on the other hand that a tribe should call itself from some noted leader is a very common occurrence, and the name Chrobat was certainly used as a personal name. One of the five brothers who led the Croats southwards was so called; but, what is much more important, the first great chief of the Bulgarians, who were Huns under another name, was called Chrobat, and it was under his sons that the Bulgarians separated into various sections and were scattered. It would seem, therefore, that Chrobat was a Hunnic name, and it is not improbable that the Croats were so called from some Hunnic chief named Chrobat. The names Bodrog, Ceadrag, Anatrog, etc., chieftains of the Polabian Slaves, have a very Bulgarian and Hunnic appearance. The name Derwan, which occurs as that of a Sorabian chief, in 630 is according to Schafarik not Slavic (*op. cit.*, ii, 513), and may be Hunnic. I may add, however, that Zeuss compares it with the Slavic name Derewliani, a well-known Russian tribe mentioned by Nestor, and the Derbleninoi of Constantine Porphyrogenitus, both names having an "l" in their composition like the forms Serbli or Sorabli of Serb (*op. cit.*, 643). Beda calls the Slaves Huns, which the Saxon, Danish, and Scandinavian writers frequently do, and which is doubtless to be explained by the fact that the Slaves were generally the subjects of the Huns. He tells us that the priest Egbert converted the Frisones, Rugini, Dani, Huni, old Saxons, and Boruchtuarii, that is the various tribes of Northern Germany. Here, as Schafarik argues, the mention of the Huns with the other tribes shows that by them the Slaves are meant, since there were no Huns proper in Northern Germany.

I would explain in this way a curious statement of Adam of Bremen, who in describing the marriage of the Slave chief Meshnoi with the niece of Duke Bernard, calls him a dog. Now the German for dog is hund, which is very like Hun.

Thus we understand Helmold when he says, "Saxonum voce, Slavi canes vocantur." This is like the old chronicler who calls the Great *Khan* of Tartary, *Magnus Canis* or the Great Dog.

Again, there is a tribe of Serbs whose name occurs in various districts, which is interesting in this discussion. This is the tribe of the Syssele or Siusli to which I have already referred. It has been argued that the name of this tribe is the same as that called Szekelyek or Szekely by the Hungarians, the well-known Seklers of Transylvania. This tribe, which speaks the Hungarian language, is essentially a part of the Hungarian nation. It occurs in mediæval history under the form *Siculi*. The *Siculi* are considered by the Hungarian chroniclers to be descendants of Attila's Huns; thus the notary of King Bala writes of them: "*Siculi qui primo erant populi Athelæ regis* (Zeuss, 756), *tria millia virorum, eadem de natione (Hunorum), . . . metuentes ad Erdewelwe confinia videlicet et Pannoniæ regiones se transtulere, et non Hunos sive Hungaros, sed in illorum agnoscerentur esse residui, Siculos, ipsorum autem vocabulo Zekel, se denominasse perhibentur. Hi Siculi Hunorum prima fronte in Pannoniam intrantium etiam hac nostra tempestate residui esse dubitantur per neminem cum in ipsorum generatione, extraneo nondum permixta sanguine, et in moribus severiores et in divisione agri ceteris Hungaris multum differe videantur*" (Throrocz ap Schwantn, 78; Zeuss, 756). Simon Keza calls them *Zaculi*, i.e., *Sakuli*, and Schafarik connects with this form of the word, the Serbian names of *Sekula* and *Sekulit* (Schafarik, ii, 204). It seems exceedingly probable that these Szekely gave their name to the Syssele or Siusli, who are found so widely scattered from Wend Syssel in the north of Denmark to Susola in Russia, and if so we have another piece of evidence to show that the Serbs were led by a caste of Huns. Again, it is very curious that the Western Slaves should be so often referred to as Huns. I have pointed out that those settled in the Swiss valleys are so called, but what is more important in our present discussion is that the Slaves of the Elbe were actually known as Huns (Schafarik, 512). And it was probably from this fact that we meet with the name Hun so frequently in the folklore of Germany and the Norse countries. I hope to revert to this question when we come to deal with the Pannonian Slaves in a future paper. Meanwhile, I would urge that the Northern Serbs and Croats occupied the Valley of the Elbe under the leadership of Huns or Avares. When the flat country east of that river was abandoned by the various Teutonic tribes of Lombards, Angles, Varini, and by the Vandals, these Slaves who had been conquered by the Huns migrated into the vacant lands, and thus occupied them. This was probably

during the sixth century after Christ. They thus thrust themselves in between the Poles and the Germans, and their country became a veritable Mark or March, a name which was in fact applied to several of its districts, as Ukermark, the Mark of Brandenburg, etc. Let us now collect the scattered fragments of their history which have survived, and begin with the Obodriti.

The Obodriti first appear in history in the pages of the Frankish chroniclers of the eighth century. Charlemagne was brought into contact with them in his Saxon wars, and we are told that in 780, after the fierce struggle with the Saxons which had lasted since 772, he went to where the Ohre falls into the Elbe, where he arranged the affairs of the Saxons and of the Slaves beyond the Elbe (Eginhardt Annals, Pertz, i, 160). The *Annales Lauresh.* say that in this year a great number of Winidi were converted to the faith (Pertz, i, 31). By these Slaves and Wends no doubt the Obodriti are meant, and the Chron. Mur. expressly says the Obodriti were converted in this year (Schafarik, ii, 577, note 1).

In 789 Charlemagne was once more in this district, and marched to subdue the Wiltzi. He had to traverse the country of the Obodriti, who were no doubt his allies (*Ann. Lauresh.* Pertz, i, 34; *Ann. Lauris., id.*, 119 and 174; and Eginhardt's, *id.*, 175). The Wiltzi were subdued and made tributary, and gave hostages. On this occasion the Suurbi and the Obodriti, whose prince was Witzan, were in alliance with him (*Ann. Lauris.* Pertz, i, 174). When in 793 Karl was absent on his Spanish campaign, the Saxons again broke out into revolt. During this strife it seems that Wiltzan or Witzan, the chief of the Obodriti, went across the Elbe, probably to assist the Frank kaizer, when he was waylaid in an ambush by the Saxons in the town of Hliuni, *i.e.*, Lune, near Luneburgh, close to the Elbe, and was killed by them (*Ann. Lauresh.* Pertz, i, 36; Eginhardt, *id.*, 181).

Charles, who in 795 was at Bardenwik, near Luneburgh, ravaged the country of the Saxons, who had thus killed his ally. They were apparently the Trans-Albingians (*Ann. Lauresh.* Pertz, i, 37). In 798, we are told in the annals last cited, that "our Slaves, who are called Obodriti, united themselves with the Frank Emperor's 'Missi,' and marched against the Trans-Albingian Saxons, whom they defeated in a fight, in which the Saxons lost 2,901 men. After their victory they went to Charles in Thuringia, who lauded them for what they had done" (Pertz, i, 37). The Annals of Eginhardt say that the Saxons were the aggressors, adding the phrase, "for the Obodriti were always the allies of the Franks." The chief of the Obodriti on this occasion,

we are told, was Thrasco or Drasco, and the fight took place at Suentana (*i.e.*, Swante in the district of Schwan on the Warnof). This author says 4,000 of the Saxons fell, as was reported by Eburis, who was present at the fight. Being thus beaten they returned home again (Eginhardt, Pertz, i, 185). The following year the emperor sent his son Charles to settle the matters of the Wiltzi and the Obodriti, that is doubtless to create a better feeling between those tribes (Eginhardt, *id.*, 187). In 804, the Emperor, weary with the constant outbreaks of the Trans-Albingian Saxons, determined to transplant them within his own borders. We are told by Eginhardt that he so transplanted all the Saxons living beyond the Elbe, and those living in Wigmodia, south of that river, and gave their land to the Obodriti (Pertz, i, 191-2). The Chron. Moissiac. says that Charles, having gone to Oldonostath, *i.e.*, Oldstede on the Alster, sent his troops, which transported all the Saxons in the districts of Wigmodia, Hostingabi, and Rosagabi, as well as those living beyond the Elbe (Pertz, i, 307). Wigmodia was so called from the River Wimme, and Hostingabi from the River Oste; they were large districts on the left bank of the Lower Elbe, comprised in the diocese of Bremen. Rosogavi was apparently situated in the same district and also on the left bank of the Elbe. Kruse argues that the castle and monastery of Rosenfeld near Stade derive their name from it (Chron. Norm., 39). He also argues against the likelihood of a transportation from the districts south of the Elbe, but I confess the statements of Eginhardt and of the Chron. Moissiac, which at this particular date are of singular weight and authority, seem to me to be overwhelming, and that it is probable that by this transportation, Holstein, with a large part of the district between the Lower Weser and the Lower Elbe, were denuded of their Saxon population altogether, and given over to the Obodriti. This is partially confirmed in other ways: thus the name of the Duchy of Lauenburgh is apparently connected with the Linai, and of this district we have a curious mention in Eginhardt's Annals under the year 822, where we are told that by order of the emperor the Saxons built a fortress across the Elbe at Delbende. *The Slaves who lived there and occupied it previously were driven away*, and a Saxon garrison put there against their incursions (Pertz, i, 209). The Delvunda, adds Pertz, is the modern Stecknitz in the Duchy of Lauenburg. He argues that the fortress so built was situated near Mollen, and that from this plantation the district from Mollen to the Elbe received the name of "der Sachsenwald," which it bears to this day (*id.*). In a paper on the Saxons of Old Saxony, which I had the honour of reading before the Society, I argued from other considerations that the present inhabitants of Holstein are descended



from immigrants from Saxony south of the Elbe, and not from the old indigenous Saxons of the district. This all goes to show that the people of Trans-Albingia were in fact transported bodily by Charlemagne, and for a time at least their lands occupied by the Obodriti. The same year in which this transportation took place various Slavic chiefs came to the Emperor at Holdanstadt, asking him to settle their differences. He appointed Thrasco as their head (*Chron. Moissiac. Pertz, i, 307; Ann. Laur., id., i, 191; Ann. Metenses; Kruse, 41*). To prevent further mischief, it would seem from the capitularies that Charlemagne forbade the merchants from selling weapons to the Slaves. He also appointed governors to their frontier towns. The institution of Margraves or Marquises did not take place till a later date (*Schafarik, ii, 519, note*).

In 808, the famous Danish King Godfred marched against the Obodriti. He captured several of their fortresses. Drasco was driven away, and Godelaib, another chief, captured by stealth, was hanged; and both divisions of the Obodriti were made tributary to the Danes. Godfred did not win his way without serious loss. We are told several of his principal people were killed, as well as Reginold, his brother's son. Charlemagne, meanwhile, despatched his son Charles across the Elbe against the Linones and Smeldingi, who had sided with the Danes, and having punished them, he returned across the river. The Danes were joined by the Wiltzi who, we are told, on account of their ancient feuds with the Obodriti, had of their own accord joined the Danes, and returned home safely with a large booty. Godfred destroyed Reric, the chief emporium of the Obodriti, exacted a large tribute from it, and carried off its merchants (*Eginhardt; Pertz, i, 195; Chron. Moiss., id., 258*). The Emperor ordered two fortresses to be built on the Elbe to overawe the Slaves. It was from this Reric that the Obodriti were also called Reregi, "Obodriti qui nunc Reregi vocantur," as Adam of Bremen says.

In 809 Thrasco, who had had to give his son as a hostage to Godfred, having been joined by some Saxons, wasted the lands of his neighbours the Wiltzi, and returned home with a large booty; and afterwards again, with the help of the Saxons, marched against the Smeldingi, who had gone over to the Danes, as I have mentioned, and captured their chief town of Connoburg, but shortly after he was killed by the Danes by treachery at Reric (*Eginhardt Annals, Pertz i, 196-197; Chron. Moiss., Pertz i, 309; id., ii, 258*).

In 810, the fortress of Hohbuokhi on the Elbe, no doubt in the country of the Linones, was captured by the Wiltzi (*Eginhardt Annals, i, 197-198*). The following year the Emperor sent



his son Charles across the river, who wasted the lands of the Lanai or Linones and Bethenici, and rebuilt Hohbuokhi (Chron. Moiss., Pertz, i, 309). In 814 Charlemagne died. His biographer, Eginhardt, says: "the old hero had made tributary all the tribes between the Rhine and the Vistula: the Welatabi or Wiltzi, Sorabi, Obodriti, and Boemanni." Schafarik thinks this an exaggeration, but I confess it seems in unison with the statements of the Chroniclers. It does not mean that these tribes ceased to be governed by their own chiefs, but that they were dependent and tributary on the great Kaizer. In the year 815, Harald, the Danish King, the *protégé* of the Frank Emperor, returned home, and we are told the Saxons and Obodriti were ordered to march to assist him, and they accordingly advanced beyond the Eider, and having ravaged the country, retired again (Eginhardt Annals, Pertz, i, 202). During the same year, Louis held a convention at Paderborn, where envoys went to him from all the Eastern Slaves (*id.*). In 817 a fresh disturbance arose among the Obodriti. We are told that after the death of Thrasco, Slaomir, who had succeeded him, and who was probably his brother, was ordered by the Franks to divide his heritage with Ceadrag, Thrasco's son. This annoyed him so much that he declared he would never cross the Elbe again, nor repair to the Imperial palace. On the other hand, he sent envoys to the sons of Godfred, the Danish King, who were at issue with the Franks, and asked them to send an army into Saxony beyond the Elbe.

They accordingly went and laid waste the country on the banks of the Stur, while the Obodriti repaired to Esesfelth and attacked it; but the place being bravely defended, they retired (Eginhardt Annals, i, 203-4). The next year Slaomir was captured, and was taken to the Emperor at Aachen by the prefects of the Saxon March and the legates. Being accused of many crimes by the Obodritan chiefs, he was exiled, and Ceadrag was given the kingdom (*id.*, Pertz, i, 205). In 821 Ceadrag having proved unfaithful and having entered into some conspiracy with the Danish princes, the sons of Godfred, Slaomir was sent back again, but when he arrived in Saxony he fell ill, and having been baptized, died (*id.*, Pertz, i, 207-208). The following year the Emperor held a convention at Frankfort, where all the Eastern Slaves, *i.e.*, the Obodriti, Sorabi, Wiltzi, Beheimi, Marvani, Prædenecenti, and the Avars of Pannonia, sent envoys with presents (Eginhardt Annals, Pertz, i, 209). In the spring of 823, the annual May meeting took place at Frankfort, and Ceadrag was there accused of treachery; messengers were sent to him and he accordingly sent some envoys to make his peace with the Emperor, and promised to go in person in the

autumn. The autumn meeting was held at Compiègne, and Ceadrag with some of his people went there as he had promised. He was reproved, but on account of his parents' good character was allowed to return again (*id.*, 211). In 828 fresh complaints were made against Ceadrag at the Imperial May meeting at Ingelheim. He was ordered to appear at the October meeting and having gone there was detained. Meanwhile, messengers were sent to inquire among the Obodriti whether they wished to have him back or not. They reported that opinion was divided on this question, but that the more respectable and important chiefs wished him to go back. He was accordingly sent back again. (*Id.*, 215.)

During the strife between Louis and his sons, the Slaves were apparently unmolested by the Franks, and we do not meet with them in the Annalists for some years. In 839 a Saxon army was sent against the Linones who had fallen away from their allegiance, while another was sent against the Wiltzi and Sorabians (Schafarik, ii, 522). By the Treaty of Verdun, made in 843, the Polabian Slaves fell to Louis the German. This was apparently deemed a good opportunity for revolt, and we are told the Obodriti accordingly rebelled in 844, but they were repressed, and their leader Gotzomysl was killed (*id.*, 523). In 845 Slavic envoys went to Louis at Paderborn. The defeat just mentioned seems to have pacified the Obodriti for a few years, and it was not till 858 that Louis sent his son Louis against the Obodriti and Linones.

In 862 Louis himself led an army against the Obodriti, and compelled their chief Dabomysl (Schafarik suggests Daba, Dabisa, or Dabizif) to submit and give up his son and others as hostages (Fulda, "Annals," *id.*, 374). Hincmar says the expedition was not successful, and that Louis returned to Frankfort after losing several of his principal men (*id.*, 458). Louis the Second, about the year 877, exacted tribute from the Linones and Siusli (Schafarik, ii, 524). We do not read of the Obodriti again till 889, when Arnulph, the famous German king, marched against them. The expedition was not successful, and the army returned after effecting nothing (Fulda, "Annals;" Pertz, i, 406-7). The Obodriti apparently now regained their freedom and remained independent till the time of Henry the First (Schafarik, ii, 525). It was probably in the year 927 when they were again subdued, and we find them named by Widukind with the Wiltzi, Hevelli and Redarii as made tributary by Henry (Schafarik, ii, 523, note 4). Some time after, Henry punished the Danes severely, and created a Margraviate of Schleswig. This so terrified the Obodriti that they at length, about the year 932, consented to become

Christians (*id.*, 527). Henry died in 936, and was succeeded by his son Otho the Great, who determined to overcome the Polabian Slaves with the sword and the Cross. The campaign began unluckily in 939 with an attack made by the Obodriti on the German Margrave, whose army was defeated and he himself killed. The Annalist gives a singularly graphic description of the Obodriti, which I will quote in the original:—

“*Illi (i.e., the Obodriti) vero nihilominus bellum quam pacem elegerunt, omnem miseriam caræ libertati postponentes. Est namque hujusmodi genus hominum durum et laboris patiens, victu levissimo assuetum, et quod nostris gravi onere esse solet, Sclavi pro quadam voluptæ deducunt*” (*Widukind, ii; Schafarik, ii, 528, note 1*).

The Margrave Gero, to revenge the defeat just named, invited thirty Slave chiefs to a banquet, where all except one, who accidentally escaped, were murdered. This horrible crime led the Stodorani to take up arms. They were joined by the other Slavic tribes, and the Germans were driven beyond the Elbe. When Otho heard of this, he hastened to Magdeburgh; but the crafty Gero had already pacified the storm. He had won over by presents and promises Tugumir, a Slavic prince who was well disposed towards the Germans, and who had been baptized, to betray his own countrymen. He returned home and pretended to have broken with the Germans, and was believed by his people, who made him their chief. He then took the opportunity to kill his nephew, the prince who had escaped when the other twenty-nine were massacred, and declared his country to be subject to the German king. This was followed by the unwilling submission of the Obodriti and Wiltzi (*Schafarik, ii, 528*). During the 14 years that followed, Otho founded the bishoprics of Oldenburgh (*Stargard*) in Wagrien, Havelberg (*in 946*), and Brandenburg (*in 949*) for the conversion of the Slaves. This policy was not immediately successful. During the absence of Otho and of Gero, the Ukrani took up arms. This was in 954. The revolt was speedily quelled by Gero, and the Duke Conrad. Next year the rebellious Saxon Counts, Wichman and Egbert, were driven out of Saxony by Hermann Billung. They fled to the Obodritan princes Nakon and Stoinegin, who were unfriendly to the Germans, and who were in the town of Swetlastrana, whose site is not known. They persuaded them to oppose the Saxon duke Hermann. The latter retired from Swetlastrana after a slight skirmish, and even agreed to surrender Kokareszem to the enemy. As the Germans were retiring from the town, a brawl arose between them and the Slaves, in which the latter, unmindful of the agreement, killed several of them, and carried off the women

and children. Otho marched in all haste to the rescue with his son Liutolf and the Margrave Gero. Meanwhile, the Obodriti, Wiltzi, Chrepienyani, Dolenzi, and Redarii had banded themselves together under the command of Stoinnegin. Pourparlers ensued. The Obodriti were willing to pay tribute, but objected to the Germans mixing in their internal affairs, to their land being divided out into German "gaus," and to German officers being appointed as counts of the "gaus," but Otho was inexorable, and a bloody battle was accordingly fought on the River Dosa, in which the Slaves were defeated. Stoinnegin and a great number of Slaves fell in the battle, and Wichman and Egbert went to King Hugh in France.

In this battle the Rani, or people of Rugen, sided with the Germans. Otho again fought with the Redarii in 957, and as Wichman afterwards took refuge with the latter and the Stodorani, the war lasted till 980. The Slaves at length consented to be baptized, and to have churches and monasteries built among them. They retained their own princes, but the land was divided into gaus, and Margraves were appointed as overseers, who had a joint authority with the princes (Schafarik, ii, 529-530).

On the death of the Margrave Gero, in 965, fresh disturbances arose on the frontier. The Saxon Duke Hermann Billung having interfered as arbitrator in a quarrel between the Obodritan chief Mestiivi (? Mctislaf) and Zelibor, Prince of the Wagrians, and decided against the latter, he took up arms and persuaded Wichman to join him. He was besieged in his capital, however, made prisoner and foiled. Wichman fled to the Wolini, at the mouth of the Oder, began a struggle with the Poles, and there lost his life in 967.

Under Otho the Second the strivings of the Slaves after independence were kept alive by the tyrannical conduct of the Margraves. In 976 the Emperor had to march in person against the Wiltzi, but without much effect. The same cause tended to retard the spread of Christianity. This was especially the case among the Obodriti, where although the old Prince Mestivoi was a Christian, and had in 973 married the sister of Wago, Bishop of Stargard, yet incited by his son Michislaf who was inclined to Heathenism, and by his own inclination, he put away his wife, plundered the property of his brother-in-law the bishop, and persecuted the Christians. Mestivoi is called Billung by Helmold. He took this name on his baptism, being so called after the Saxon Duke Hermann Billung (Schafarik, ii, 531, and note 7).

On the news of the Frankish defeat at Basentella reaching the Slaves, they broke out into revolt. The avarice and cruelty

of the Margrave Theoderic are stigmatized by the Chroniclers as a chief cause of their disaffection. In 983 the Obodriti marched on Hamburg, and the Wiltzi on Havelberg and Brandenburg. They burnt the churches and bishops' dwellings there, and killed or drove out the Germans, and even threatened Saxony.

In 996 Otho the Third agreed to a truce with the Obodriti and Wiltzi, by which the former bound themselves to adopt Christianity. So great was the opposition to this faith, which was doubtless then very Erastian, that the Obodriti had driven out their chief Mestivoi, because he was a Christian. By the treaty this Slavic tribe secured its full freedom, except apparently the payment of a certain tribute (Schafarik, ii, 532). They were only quiet a very short time, for the very next year we find them overrunning the land of the Stodorani and of Brandenburg, and making incursions into Saxony. On the death of Otho the Third and before his successor Henry the Second was everywhere acknowledged, the pressure of the Frank border-commanders aroused a fresh outbreak among the Obodriti, under their chiefs Michislaf and Mestiwoi the Second, in which they showed unusual energy. Christianity was trampled out, and the priests slaughtered, and tribute and service were withheld from the Emperor. This was in 1002. After the accession of Henry the Second, and when he was at war with Boleslaf of Poland, he made overtures to the Obodriti and Wiltzi. The former agreed to acknowledge his suzerainty, and to pay tribute, while the question of their again adopting Christianity was left over. The Wiltzi merely agreed to send a contingent to help the Emperor in his wars. This was in 1003, and afterwards the latter were faithful allies of the Franks in their Polish wars. In 1018 strife arose between the Obodriti and the Wiltzi in consequence of the refusal of the Obodritan chief Michislaf to render assistance to the latter against the Poles, which led to the Wiltzi being severely beaten, but this was a mere passing phase. We soon find the Obodriti, Wagrians, and Wiltzi driven to rebellion by the exactions of the Margrave Bernhard, and banishing the priests whom they had imprisoned at Schwerin, and largely reverting to paganism. Neither Henry nor the Saxon Duke Bernhard could make much way with them, and we are told that in 1022 the Emperor tried to persuade the leaders of these tribes (who had apparently meanwhile submitted) to pay tithes, but in vain, and the Bishop of Stargard retired in consequence of a lack of income to Hildesheim (Schafarik, ii, 534). Henry was succeeded by Conrad the Second. He allowed the Saxons to ill-use the Wiltzi, who thereupon went over to the Poles.



On the death of Michislaf, the ruler of the Obodriti, several princes succeeded to his heritage, of whom Anatrog favoured the heathens and Pribignief or Udo, Michislaf's son, the Christians. Two other Obodritan princes, Sederich and Ratibor, are also mentioned at this time. Pribignief or Udo was killed by a Saxon in 1031, whereupon his son, Gottschalk, whose mother was a daughter of the Danish King, and who had himself been brought up in a monastery at Luneburg, fell away from Christianity and fought with his Obodriti against the Germans, and afterwards went to live among the Danes, in whose service he fought for 11 years. On Gottschalk's departure, Ratibor seized the throne, but fell in 1042 with his eight sons in fighting against the Danes. Gottschalk was now reinstated with the help of the Danes. He encouraged the Christians, built churches and monasteries, and oppressed the heathens. Two new bishoprics were founded in 1051 at Ratibor and Rerig.

Grave discontent arose, however, in consequence of these changes, and Gottschalk was murdered at Lentschin, on the 7th of June, 1066. The bishops, the monks, and other Christians were slaughtered, churches and monasteries were overthrown, Gottschalk's widow, with his sons, Buthue and Henry, were sent back to Denmark. The leader of this outbreak was Pluso, Gottschalk's brother-in-law. A terrible struggle now ensued between the Obodriti and the Germans; the former ravaged Holstein and destroyed the town of Hamburg, and for 12 years the Duke Ordulf fought in vain against the Slaves, and was constantly beaten. Buthue, Gottschalk's son, tried in vain to secure the throne; he was killed in 1071. The Obodriti wished to be ruled by Kruko, a famous chief of the Rugians, to whom the Wiltzi had, in 1070, submitted. He reigned from 1066-1105, fought bravely against both the Germans and the Danes, and conquered Holstein.

During his reign the Isle of Rugen acquired a fresh importance among the Slaves and became the chief focus of their religion, but his rule was not undisturbed. In 1093 the Saxon Duke Magnus invaded the land of the Slaves and captured 14 towns, while on another side the Danish King Eric, as the patron of Gottschalk's son Henry, invaded the country and made both Wolin and Rugen tributary. Soon after, Henry himself landed on the coasts of Wagria, the Obodriti plundered the towns on the coast and forced the aged Kruko to surrender Plön and its neighbourhood to him. In 1105, he, in concert with Kruko's young wife Slavina, killed the old hero at a banquet near Plön, conquered the neighbouring towns in the districts of Wagria and Ratibor, put himself under the protection of the Duke of Saxony, and resigned Holstein to the Danes. On hear-



ing of this disgraceful proceeding, the Obodriti, together with the Kyshani and other tribes of the Wiltzi, took up arms, but they were defeated at Smilowopol (*i.e.* Binsfeld) by Duke Magnus. This was in 1105, and Henry, who was then at Lubeck, was proclaimed King. The Slaves as far as beyond the Oder, and even the Pomorani, were subject to him, but this did not last long.

In 1107 the Obodriti and Wiltzi rebelled, while the Wagrians remained faithful, and in the following years the Wiltzi again won their complete independence and are found under their own princes. Henry died in 1126, leaving two sons, Swatopluk and Kanute, who fought for supremacy, but the latter having died in 1127, Swatopluk remained sole ruler from 1127-1129, and overcame the Obodriti and the Kyshani. Thereby he aroused the opposition of the Rani, who in 1128 destroyed his town of Lubek (Bukowec). Soon after, he was killed with his son Zwenik or Zwenko. On the extinction of the family of Gottschalk, the Danish Prince Knut Laiward raised pretensions to the sceptre of the Slaves, which were acknowledged by Lothaire of Saxony. He determined to subject the Obodritan princes Prebislaf and his grandson, Niklot, but meanwhile as he was preparing for a more ambitious venture against the Wiltzi and Pomorani he was killed by Magnus, the King of Gotland, in 1131. He was succeeded by Pribislaw and Niklot, who strove with all their might for the preservation of the old faith and the old customs. They were not long at peace, but had to struggle against powerful neighbours. Niklot died heroically in 1160, fighting against Henry the Lion, and with him fell the last prop of the Slaves in these districts.

Let us now turn to the Sorabians, and track out their story. Fredegar is the first author who mentions these Northern Serbs. In describing the struggle of the Eastern Franks with the famous Bohemian hero, Samo, who first freed his country from the yoke of the Avars, he tells us that after the battle of Wogast in which the Franks were so badly beaten and which was fought in the year 630, many of the Winidi made an irruption into the Frankish borders, and he tells us further that Dervan, the leader of the Surbian race, which was of the stock of the Slaves, and was formerly subject to the Franks, submitted with his kingdom to Samo (Fredegar ed. Guizot, ii, 226). Thunmann, Gebhard, and others have looked upon these Serbians as the inhabitants of Lusatia, which I think is probable. Schafarik argues that this could not be, because it is said they were subject to the Franks, who had no authority in Lusatia, and he argues that Dervan ruled in the later Serbian district between the Saale and the Elbe. Our authorities are so exceedingly

scanty for the history of the sixth and seventh centuries in these parts that we really do not know how far east the Franks had authority before the campaign of Samo, and I am disposed to think that they were accepted as suzerains to a considerable distance beyond the Elbe, which would explain the statement of Constantine Porphyrogenitus that White Croatia bordered on the Franks; and we have the positive statement of Vibius Sequester, who wrote in the sixth century, to the effect that the Suevi and the Servitii or Serbs were separated by the Elbe, he says: "Albis Germaniæ Suevos a Servitiis dividit mergitur in Oceanum." Here is no mention of the Saale. The same conclusion follows from the accounts of the attack of the Avars on the Franks in 562, where we read that the Frankish territory then extended to the Elbe (Schafarik, ii, 510). It is true that the Serbians had reached the Saale in the end of the eighth century, but it is far more probable that in the seventh they were bounded on the west by the Elbe, as Vibius Sequester says. They perhaps crossed the Elbe as settlers after the Avarian invasion of 562-563. Eginhardt, writing of the year 782, speaks of the Saale as then dividing the Thuringians and the Sorabi, and tells us the latter lived between the Saale and the Elbe, and in 782 made an incursion into the borders of the Thuringians and Saxons, who were their neighbours. The Serbians in fact now occupied a large district on both sides of the Middle Elbe. I will now trace out the history of these Serbs.

In 782 we are told by Eginhardt that news was taken to the Emperor that the Sorabian Slaves, who lived between the Elbe and the Saale, had entered the land of the Thuringians and Saxons which bordered on them, for purposes of plunder, and had laid waste several districts. He thereupon sent Adalgisus, his chamberlain, and Gailo, the master of the horse, and Worad, the count-palatine, with some Franks and Saxons to punish them. When these commanders entered the borders of Saxony they found that the Saxons had been incited to rebel again by Widukind: they accordingly turned aside against the latter (Eginhardt Annals, Pertz, i, 163; Ann. Laur. *id.*, i, 162). In 789, when Charlemagne marched against the Wiltzi, we are told that there went with him some of the Slavi called Suurbi, as well as the Obodriti under their chief, Witzan (Ann. Laur. Pertz, i, 174).

In 805 Charlemagne sent a large army to lay waste Bohemia. This army was divided into four divisions, one of these marched through the districts of Werinofelda (*vide supra*) and Demelchion (*i.e.* the Gau of the Daleminzi). Semela, who ruled there, was defeated and gave his two sons as hostages. After this, this division went to Fergunna, a "gau" on the river Eger in Bohemia (Schafarik, ii, 606). Having been joined by other

troops, they devastated the district of Camburgh on the Elbe. Another army went to Magdeburg and pillaged the gau of Genewara (Chron. Moiss., Pertz, i, 308).

The next year Charlemagne again sent his son Charles against these Slaves of the Upper Elbe. He entered the district of Werinofelda, where a battle was fought, in which Milidnoch, the chief of the Suurbi, was killed. The country was laid waste, whereupon the other Slave chiefs sent in their submission and gave hostages. Two towns were ordered to be built to overawe them, one north of the Elbe opposite Magdeburgh, the other in the eastern part of the Saale, near Halle. After this, the Franks returned home again (Chron. Moiss., Pertz, i, 308; Enhardus, *id.*, 193). In a capitulary of 807, we find provisions in regard to the preparations to be made in case the Bohemians or Sorabians should prove hostile (Schafarik, ii, 519, note 6).

Charlemagne died in 814. In Eginhardt's list of the nations he subdued, the Sorabi are mentioned (Pertz, ii, 451). In 816 his son Louis ordered the Franks and Saxons to march against the Sorabi (Eginhardt Annals, *id.*, i, 203). In 820 the Franks fought with Liudiwit, King of "the Eastern Slaves," whom Schafarik identifies with the Sorabi. To the Convention of 822, held at Frankfort, the Sorabi, with the other Eastern Slaves, sent envoys and presents; at the similar meeting at Ingelheim, in May, 826, Tunglo, the chief of the Sorabi, with Ceadrag of the Obodriti, were accused of malpractices. They were ordered to appear in October, when Tunglo having surrendered his son as a hostage, was allowed to return home again (*id.*, 215). The quarrels of Louis with his sons apparently induced an uneasy feeling on the frontier, and in 839 we find the Emperor ordering the Saxons to march against the Sorabi and Wiltzi, who had recently burnt some of the towns on the Saxon march. The Saxons, we are told, thereupon marched against the Sorabi called Colodici, as far as Kosinesburg (according to Leutsch the modern Guetz or Quetz). The Sorabi were defeated, and their chief, Cimusclus (Czimislaw), fell in the struggle (Prud. of Troyes, Pertz, i, 434, 436; Schafarik, ii, 522). The foundation of the bishopric of Bamberg took place in 834, and was a notable event in the history of the spread of Christianity among the Slaves. By the Treaty of Verdun, made in 843 between the sons of Louis, Germany, with the suzerainty over the Polabian Slaves, fell to Louis the German. This led to outbreaks on the frontier, and in 846 we find Louis marching against the Slaves beyond the Elbe and the Bohemians (Annales Xantenses, Pertz, xi, 228; Prud. of Troyes, Pertz, i, 442). In 849 we read of a Thacolf, the governor of the Sorabian March (dux Sorabici limitis), who had

a great reputation among the Slaves since he was well versed in their laws and customs (Fulda Annals, Pertz, i, 366). From some of the Fulda deeds it seems he had property in one of the Sorabian "gaus" (Meissen) and probably also in Bohemia. He is called "Tacgolfus de Bohemia comes" in one deed (Schafarik, ii, 523, note 4). In 851 we again find the Sorabi invading the Frank borders, and Louis marching against them. Having wasted their country, they were constrained by impending famine to submit; as the chronicler says, "they were subdued by hunger rather than by the sword" (*id.*, Pertz, i, 367). In 855 Louis was much disturbed by the attacks of the Slaves (Prud. of Troyes, *id.*, i, 449), and the next year he marched an army through the country of the Sorabi, whose chiefs joined him, and with their help he overcame the Daleminci, whom he made tributary and compelled to give hostages; thence he went among the Bohemians and subdued some of their chiefs. In this expedition he seems to have lost a great number of his men; one author says the larger part of his army (Fulda Annals, Pertz, i, 370; Prud. Trec. *id.*, 450). In 857 we read of the Sorabian Prince Zestibor offering refuge to a fugitive chief from Bohemia (Fulda Ann. *id.*, 370). In 858 an army was sent under Thacolf against the Sorabi, who were rebellious (*id.* 371). Later in the year news arrived that the Sorabi, having put to death his *protégé*, their chief, Zestibor, meditated rebelling. (*Id.*, 237.)

In 869 we read how the Sorabi and Siusli, having united with the Bohemians and other neighbouring tribes wasted the Thuringian borders, and killed some people there. Louis sent his son with the Thuringians and Saxons against the Sorabi, whom he defeated, and killed a great number of them, and severely punished the Bohemian contingent which had joined them (Fulda Annals, *id.*, i, 381). Hincmar tells a different story: he says that Louis obtained peace from the Winidi on certain conditions (*i.e.*, he had to sacrifice something) and sent his sons to ratify it, while he himself remained in a weak condition at Ratisbon (*id.*, i, 485). In 873 Thacolf, the ruler of the Sorabian march, died. The next year the Sorabi and Siusli rebelled; Raculf, Thacolf's son, and Archbishop Liutbert marched against them, crossed the Saale, wasted their lands, and restored them to their former subjection (Fulda Annals, *id.*, i, 385). In 880 the Margrave Poppo marched against the Bohemians, Serbians, and Daleminzi. This official had apparently ruled with a heavy hand, for some years after we find he was deprived, to the great relief of the Serbians, who sent to thank the Emperor (Schafarik, ii., 525). Meanwhile, the Serbs east of the Elbe united themselves with the Bohemians, and for some time formed part of the dominions of

the great Moravian ruler Swentopulk (Schafarik, ii, 525). We have, in fact, reached a period when the empire founded by the Carolingians, was *in extremis*, and when the German borders were much curtailed, the Elbe now forming their frontier from Bohemia to the sea. In 908 the Margrave Burkhardt, who could not make head against the Slaves beyond the Elbe, was killed in an encounter with them, while the Saxon Duke, Otho, the father of the later Emperor Henry, fought against the Daleminci in the same year. He was only able to add a small part of the Sorabian land to his dominions (Schafarik, ii, 525). When his son Henry succeeded to the crown of Germany, things entirely altered, and the Slaves were relentlessly conquered and incorporated. The war began in 921 with indecisive results. The following year, Henry marched into the land of the Milciani, whom he compelled to pay tribute, while he destroyed the town of Lubuzua (now Lebus) between Dahme and Schlieben (Schafarik, ii, 526). In 927, Henry suddenly entered the land of the Stodorani, captured their stronghold of Branibor, and made their princes tributary. He then passed into the land of the Daleminci, and captured their town of Grona (according to Leutsch, the modern Yahne, while Wersebe identifies it with Gruna), and having entered Bohemia, returned thence to Saxony in triumph (Schafarik, ii, 527). In 932 the Hungarians made an invasion of Thuringia, and passed in doing so through the land of the Daleminci. Henry's last campaign was against the Ukri, a branch of the Wiltzi, whom he in 934 compelled to pay tribute. (*Id.*)

About the year 960, the Saxon Count, Wichman, who was more or less of an outlaw, fled, first to the Danes, then to the Slaves at the mouth of the Oder. He then entered the service of his patron, the Margrave Gero, and made several attacks against the Lusatians, Milciani, Pomeranians, and Poles. In 963, Gero having been joined by a mercenary army of Slaves secured by Wichman, broke into Lusatia, and the land of the Milciani, who had sided with the Poles, defeated the Polish Prince, Michislaf, subdued the Lusatians and Milciani, and compelled the Polish princes to hold the land between the Warthe and the Bober as a German fief. Gero died in 965 (Schafarik, ii, 530). The Polabian Slaves having been more or less subdued, the Emperor Otho founded the Archbishopric of Magdeburg, with the subordinate sees of Merseburg, Zeitz (later Naumburg), and Meissen; the last in 968. We are told he knew both Latin and Slavic: "*Romana lingua Slavonicaque loqui sciebat, sed rarum est, quod earum uti dignaretur*" (Widukind, Schafarik, ii, 531, note 5). In 983, shortly before the death of Otho the Second, we find the Bohemians under the



Saxon Count, Dedo, making an invasion as far as Zeitz, which they laid waste, together with several towns and monasteries, as far as Magdeburg (Schafarik, ii, 533). A bloody fight at the River Tonger, in which 60,000 Slaves took part, was really undecided, although the Germans claimed the victory, and for many years a large part of the Slaves were practically independent. In 986, Otho the Third conquered the Stodorani, and in 992 recovered Brandenburg through the treason of a Saxon deserter.

In 1002 the Polish ruler Boleslaf Chrobry (*i.e.*, the brave) invaded the district of Meissen, and ravaged Lusatia and the country of the Milciani. This war continued for some time and eventually Boleslaf succeeded in annexing to his dominions the district of Lubus, Lusatia, the country of the Milciani and a part of Sorabia as far the Black Elster. (*Id.*, 534.)

In 1030 the Poles conquered Brandenburg, and the land of the Stodorani, which they held until 1101 (*id.*) In that year the Margrave Udo crossed the Elbe, conquered Magdeburg, and re-introduced Christianity there and in the neighbourhood (*id.*, 537), but this was only a transient success, and the old faith reinstated itself, while the Slavic nationality continued long unsophisticated. Albert the Bear undertook a fruitless campaign against them in 1136 and 1137, but we are now reaching a great turn in their fortunes. In 1157 Albert captured Brandenburg, conquered the Brizani and Stodorani, and gave a death-blow to an independent Slave nationality between the Elbe and the Oder. The Wiltzi, living on the Oder, became subject to Poland as early as 1121, and were the objects of Bishop Otho the First of Bamberg's missionary campaign in 1124-1129; and when at length the Danish King Valdemar, with Bishop Absolom, conquered the sacred island of Rugen and the Temple of Arkrona, the last traces were effaced of an independent Slave race between the Oder and the Elbe. A similar fate overtook the Sorabians living between the Saale, the Elbe, and the mountains separating Bohemia and Saxony. They had been defeated in two attempts which they made against Henry the Fowler in 922 and 927 to regain their freedom; their Germanization was vigorously prosecuted, especially after the foundation of the bishoprics of Meissen and of Zeitz (968). We find German towns being incessantly built and planted with German colonists while German officers were appointed over the gaus, who were subjected in 929 to the Margrave of Meissen. The most important of these Margraves were—Dedo, who was deposed in 953; Gunter, who reigned till 973; Riddag till 984; Ekkihard, a hard and warlike man who subdued the Milciani about 1000 A.D.; Herman



till 1032. At the beginning of the eleventh century, Conrad of Wettin was Margrave of Meissen. He extirpated the nationality of the Sorabians on this side of the Elbe by craft and with the sword. Beyond the Elbe, and in the later Lusatia, the Serbs had a better fate: sometimes independent, sometimes, as under the great Swentopolk, subject to Bohemia and Moravia. According to Dithmar, Henry the Fowler made them tributary in 922, but this tribute was very small, and was only paid for a short time. Soon after we find the Serbs entirely independent; the campaign which Henry in 927 had prosecuted against the Serbs west of the Elbe, did not affect *them*. When at length they were again compelled by the German Margraves to pay tribute, this was very slight, and they retained their manners and customs. During the war between King Otho the First and Boleslaf of Bohemia in 936, in which the Milciani and Lusatians were in alliance with the Bohemians, the Serbs were again subdued by the Germans. In 968 they were divided between the Margrave and the Bishop of Meissen. During the bloody war between Otho the Third and the Lusatians in 994, in which nearly all the Polabian Slaves took a part, the Sorabians remained quiet. Soon after, their country became the scene of a prolonged strife between the Poles, the Germans, and the Bohemians. In 1002 the Margrave Ekkihard, conquered the land of the Milciani in order to prevent the Pole Boleslaf Chrobry from doing so. But the same year, the latter not only over-ran this district and Lusatia, but also defended the land from the Oder to the Black Elster against the attacks of the Germans. This struggle was repeated in 1003 and 1004, 1011, etc., and indeed until his death. During the interregnum in Poland, the Germans again in 1030 conquered these countries; but in the course of the eleventh century they were again for a short time under the Bohemian rule.

When the German authority was reimposed over these districts, the Sorabians were treated more considerately than the other Slaves, partly because they had already become Christian under their Polish and Bohemian masters, and partly because it was feared they might again go over to the latter. They accordingly preserved considerable traces of their language and nationality, which were only effaced in comparatively recent times.

Schafarik has collected an interesting chain of evidences to show that the continual outbreaks and apparently ruthless character of the Slaves on the Elbe were due to the oppression they suffered from the German frontier commanders rather than to their disposition, which, like that of the Slaves elsewhere, was generally of a peaceful and quiet character.

Adam of Bremen, who was surely an unbiassed witness, says:—"Audivi etiam . . . populos Slavorum jam dudum procul dubio facile converti posse ad Christianitatem, nisi Saxonum obstitisset avaritia, quibus mens pronior est ad pensiones vectigalium, quam ad conversionem gentium. Nec attendunt miseri, quantum suæ cupiditatis luant periculum, qui Christianitatem in Slavania primo per avaritiam turbaverunt, deinde per crudelitatem subjectas ad rebellandum coegerunt, et nunc salutem eorum, qui credere vellent pecuniam solam exigendo, contemnunt . . . a quibus si tantum fidem posceremus, et illi jam salvi essent et nos certe essemus in pace." (*Op. cit.*, iii, 25; Schafarik, ii, 542.)

Helmold has quite a number of passages supporting the same view, from which I will abstract two; he says in one place: "Principes (Germanorum) pecuniam inter se partiti sunt. De Christianitate nulla fuit mentio. . . unde cognosci potest Saxonium insatiabilis avaritia, qui cum inter gentes ceteras barbaris contiguas præpolleant armis et usu militiæ, semper proniores sunt tributis augmentandis, quam animabus domiro conquiendis. Decor enim Christianitatis, sacerdotum instantia, jam dudum in Slavia convaluisset, si Saxonum avaritia non præpedisset" (*op. cit.*, c. 21). Again: "Principes nostri tanta severitate grassantur in nos, ut propter vectigalia et servitutem durissimam melior sit nobis mors quam vita . . . Quotidie emungimur et premimur usque ad exinanitionem. Quomodo ergo vacabimus huic religioni novæ, ut ædificemus ecclesias et percipiamus baptismum, quibus quotidiana indicitur fuga? si tamen locus esset, quo diffugere possemus. Trans-euntibus enim Travēnam, ecce similis calamitas illic est; venientibus ad Panim fluvium, nihilominus adest. Quid ergo restat, quam ut omissis terris feramur in mare et habitemus cum gurgitibus," etc. (*id.*, ch. 83). In a document of 1285, given by Helmold, we find the following ruthless sentence: "Velimus et debeamus omnes Slavos et cives, eandem nunc villam (Velitz) inhabitantes, eliminare . . . sine omni spe reversionis," etc., etc. (Schafarik, ii, 542 and 543, note 2.)

There can be small doubt that, as Schafarik urges, the reason why Christianity made such little progress among the Polabian Slaves, was because it was so Erastian in character, and was deemed, as it is still deemed in China, to be a weapon of political propaganda, and we accordingly find that so long as the Slaves in this district retained their nationality they also clung to their old faith. The great preservers of this nationality were the old religion and the old language. In order to prosecute their work of evangelization we are told how the clergy learnt the Slavic tongue. Among those who are

recorded as knowing it were Boso and Werner, bishops of Merseburgh, the former before 971, the latter before 1101, as well as the priest Bruno, who flourished about 1156. The first of these, according to Dithmar, also knew how to write Slavic, and taught his converts how to sing the "Kyrie Eleison." This phrase we are told the Slaves scornfully corrupted into "we kri olsa," *i.e.* "the alder in the thickets." Dithmar himself seems to have known something of Slavic, judging from a number of his explanations of names of places, which are not, however, always happy. According to the Merseburgh Chronicle, books were also composed in Slavic to assist those who wished to learn the language. Helmold tells us that Gottschalk, the Obodritan prince, preached in Slavic, and translated the addresses of the German missionaries into the same language. Bishop Otho, who spread the gospel in Pomorania between the years 1124 and 1129, is said to have spoken Slavic so well that he was mistaken for a native. The Emperor Otho the First is also said to have been able to speak Slavic, also Arnulph Count of Wagria, who lived about 1140; but no Slavic documents from this area and of this date have come down to us except an interlinear series of glosses attached to a German's Latin Psalter of the eleventh and twelfth century, of which fragments were published by F. Wiggert.

This completes for the present our survey of a most difficult and complicated subject, interesting in every way to the political philosopher no less than the ethnologist. Few people realize the very small element of Teutonic origin that there is among the people of Prussia, and that the race which is now dominant in Germany is very largely indeed of Slavic origin. East of the Elbe nearly all the labouring population of the country districts is probably Slav. The aristocracy and land-owners are no doubt Germans by pedigree, being descended from the Teutonic Knights and later immigrants. The citizens of the towns are doubtless also very largely Germans, the plantation of whom in the land of the Slaves took place at a very early date.

Thus Helmold in recounting the doings of the famous Margrave Albert the Bear, after describing his conquest of the Brizani, Stodorani, and other tribes on the Elbe and the Havel, says: "Ad ultimum deficientibus sensim Slavis, misit Trajectum et ad loca Rheno contigua, insuper ad eos, qui habitant juxta oceanum et patiebatur vim maris, videlicet Hollandos, Selandos, Flandros, et adduxit ex eis populum magnum nimis et habitare eos fecit in urbibus et oppidis Slavorum" (Helm. i, 88).

Henry the Lion did the same among the Obodriti and

Wagriani: "Munitiones quas dux jure belli possederat in terra Obodritorum, coeperunt inhabitari a populis advenarum qui intraverant terram ad possidendum eam . . . Porro Henricus comes de Rasesburg quæ est in terra Polaborum adduxit multitudinem populorum de Westfalia ut incolerent terram Polaborum et divisit eis terram in funiculo distributionis" (Helm. i., 91; Zeuss, 659).

Again, in another passage: "Et præcepit dux Slavis qui remanserant in terra Wagirorum, Polaborum, Obodritorum, Kyeinorum, ut solverent redditus episcopales . . . Et auctæ sunt decimationes in terra Slavorum, eo quod confluerent *de terris suis homines Teutonici ad incolendam terram spatiosam fertilem frumento, commodam pascuorum ubertate, abundantem pisce et carne et omnibus bonis*" (Helmold, i., 87; Zeuss, *loc. cit.*).

The story of the planting of Germans in Wagria is thus told: "Surrexit innumera multitudo de variis nationibus assumptisque familiis cum facultatibus, venerunt in terram Wagirensium ad comitem Adolfum, possessuri terram . . . Et primi quidem Holzatenses acceperunt sedes in locis tutissimis ad occidentalem plagam Sigeberg circa flumen Trabenam campestria quoque Zwentineveld et quicquid e rivo Sualen usque Agrimesou et lacum Plunensem extenditur. Dargunensem pagum Westfali, Utinensem Hollandi, Susle Fresi incoluerunt. Porro Plunensis adhuc desertus erat pagus. Aldenburg vero et Lutilenburg et cæteras; terras mari contiguas dedit Slavis, incolendas, factique sunt ei tributarii" (Helm. i., 57). Again, he says: "Reædificavit comes castrum Plunen et fecit illic civitatem et forum. Et recesserunt Slavi, qui habitant in oppidis circumjacentibus et venerunt Saxones et habitaverunt illic. Defeceruntque Slavi paulatim in terra" (*id.* i., 83). West of the Elbe, in some districts as I have said, as in the neighbourhood of Wuestrof, the Slaves retained their idiosyncrasies till a late date; but the main body of the citizens of the town was here, no doubt, German also.

Speaking of the Margrave Albert, we are told by Helmold: "Et australe littus Albiæ ipso tempore coeperunt incolere *Hollandienses, advenæ ab urbe Salevelde (Saltwedele) omnem terram palustrem atque campestram, terram quæ dicitur Balsemerlande et Marscinerlande*, civitates et oppida multa valde, usque ad saltum Bojemicum possederunt Hollandi. Scquidem has terras Saxones olim inhabitasse feruntur, tempore scilicet Ottonum, ut videri potest in antiquis aggeribus, qui congesti fuerant super ripas Albiæ in terra palustri Balsamiorum sed prævalentibus postmodum Slavis, Saxones occisi et terra a Slavis usque ad nostra tempora possessa. Nunc vero quia

Dominus duci nostro et ceteris principibus salutem et victoriam large contribuit, Slavi usquequaque protriti atque propulsi sunt et venerunt adducti de finibus oceani populi fortes et innumerabiles et obtinuerunt terminos Slavorum" (Helm. i., 81 ; Zeuss, 661 and 662).

After due allowance for all these and similar changes the fact remains that the great body of peasantry in Prussia east of the Elbe are of Slavic descent, and the fact that they have so largely lost their Slavic characteristics, and become merged in their conquerors, makes the problem of their ethnology none the less interesting because it is so tedious and difficult. Many of our conclusions about it, which are so largely indebted to the profound researches of Schafarik and Zeuss, are necessarily only tentative, and I hope to return to the subject when in a future paper we deal with the Wiltzi and Pomorians. Our next excursus will be concerning the Bulgarians.

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## ANTHROPOLOGICAL MISCELLANEA.

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### FRENCH ANTHROPOLOGY.

THE Anthropological Society of Paris was the cradle and is now the centre of Anthropological studies in France. The eminent M. Broca is both Secretary of the Society and President of the School of Anthropology. Under his direction is published the valuable "*Revue d'Anthropologie*." M. Broca is also the guiding spirit of the Anthropological Laboratory of the Practical School of Medicine. The Society for the advancement of Sciences furnishes the most active members of the Association. M. de Quatrefages, of the Museum of Natural History, is at present the only official Professor of Anthropology in France. In Lyons, an Anthropological Museum has recently been founded, under the direction and supervision of MM. Lartet and Chantre. To this there will in all probability be added a Laboratory and School. In Toulouse, M. Cartailhac publishes "*Matériaux pour servir l'histoire naturelle de l'homme*;" the special object of this publication is prehistoric archaeology.

Such are the present centres of Anthropology; of their labours I may briefly refer to recent inquiries discussed before the Anthropological Society of Paris, deliberations which arose from a discovery of M. de Ujfalvy in the mountains of the Upper Zerafshan. This traveller, by birth a Hungarian, was sent by the French Government a few years ago, for scientific purposes, to Russian Turkestan. The writer of this note directed his attention to the Highlanders of the Upper Valley of the Zerafshan or Sogdian River, the Galtchas, who are said to represent the purest remains of Aryan blood in that country. M. de Ujfalvy was so fortunate as to measure a large number of these people, and bring over to Paris a series of skulls of Eranian origin, modern representatives of the ancient Sogdians and Bactrians. M. Topinard was impressed by the wonderful analogy of the Eranian skulls of Central Asia, with the brachycephalic Celtic types of M. Broca. He saw by the facts brought to light by M. de Ujfalvy, a new proof of the Asiatic origin of the Aryas. It created a discussion which is not yet at an end, for Mde. Clemence Royer did not lose so good an opportunity of reviving her theories upon the European origin of the languages and people of Europe. M. Pietrement, on the contrary, maintained the opposite opinion. He endeavoured to establish, upon the traditions contained in the Avesta, that not only the Aryas had their origin in Central Asia, but that their primitive seat was to be found between the Alatan Moun-



tains and the Balkash Lakes, saying that the first was the sacred line, Hara Beregat, and the second the Vouva Kasha Lake, or sea, of the Zend-Zoroastrian texts. M. de Mortillet's researches as to whence came the domestic animals and cultivated plants brought into Europe at the end of the Neolithic period have established that they originated in a country south of the Caucasus and the Caspian Sea. The question is one of interest, and though still discussed, has been rendered of still more importance by the valuable discoveries of the Hungarian traveller.

The School of Anthropology has recently become the theatre for the teachings of a new Professor of Medical Geography, viz., M. Bordier. This inquirer is learning much in connection with Pathological Anthropology. He is studying the diseases by which the various races of different climates are peculiarly infected. Such researches are new, and the principle of inquiry as practised by M. Bordier is yet in its infancy, but we are convinced that it will progress satisfactorily under the guidance of its talented and able Professor.

M. Bordier has, in addition, forwarded through the Anthropological Society useful instructions to travellers destined for the Indian Archipelago, &c., for prosecuting further inquiries relative to the long-neglected subject of "Medical Geography."

In a recent number of the "*Revue d'Anthropologie*" this anthropologist has published an interesting paper on a collection of skulls of murderers. This collection, consisting of 36 specimens, was in the Pavilion of Anthropological Sciences at the Universal Exhibition of 1878. M. Bordier was struck by the peculiar formation of these skulls, which all showed characteristics of atavism, and reminded him of prehistoric types. His examination led him to the conclusion that the criminal man is an anachronism, a savage in a civilized country, and he compares him to those restive animals which eventually appear in our tame species. Of the 36 skulls, three only were neither abnormal nor pathological, and M. Bordier does not see, with Maudsley, that in these criminals there are intermediate types between men sane and insane. He considers that had these individuals been submitted to a right cerebral orthopedy they would not have been guilty of such crimes, but he formally asserts that in a legal point of view, Society has a right and is compelled to get away from the range of the criminal be he sick, responsible or not.

To the same number M. Henri Martin contributed a curious paper on Irish Traditions compared with recent Anthropological discoveries.\* M. Martin is a distinguished Celtic scholar, but he gives different names to the ancient population in Gaul from those adopted by M. Broca. M. Martin considers the Celts to be fair-haired dolichocephals, who came from the far East, and the brown brachycephals to be Celticised Autochthons. In Ireland, he sees

\* M. Martin communicated to the British Association at Dublin a paper on the same subject, which is printed at p. 585 of the Report of that meeting there. Ed.

first the fair-haired Nemeds conquering the green Erin and its unknown indigenous inhabitants, then came the Fir-Bolgs, with brown hair and eyes, but acquainted with the Celtic language and customs; these were vanquished in later times by the children of the Gods of Dorna, tall and fair-haired people driven out of Scandinavia by the Cymbric invasion.

In concluding this note I would mention a useful little book written by M. Żoborowski, a Frenchman of Polish origin. It is on the "Origin of Language." The author, reviewing previous theories on this important topic, criticises them with both learning and skill. His opinion was that of the Roman poet Lucretius, magnified in France in the last century by the President De Brosses, and which has been resumed, the means of expression were primitively analogous with man and beast. Articulated language has been acquired by man, growing but slowly and gradually from generation to generation.

GIRARD DE RIALLE.

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ADDRESS to the DEPARTMENT of ANTHROPOLOGY of the BRITISH ASSOCIATION, Sheffield, August 21, 1879. By EDWARD B. TYLOR, D.C.L., F.R.S., President Anthropological Institute.

In surveying modern scientific opinion, the student is often reminded of a doctrine proclaimed in the ancient hymns of the Zend-Avesta, that of *Zrvāna akarana*, or "endless time." Our modern schemes of astronomy, geology, biology, are all framed on the assumption of past time immense in length. In fact, one reason why the latter sciences grew so slowly till almost our own day, was their being shackled by the bonds of a short chronology allowing no room for the long successive periods through which it is now clear that the earth with its plants and animals passed into their present state. Even the Science of Man, though concerned with the later forms of being, belonging to times which geologists treat as almost modern, has nevertheless to deal with periods of time extending far back beyond the range of history and chronology.

Looking back 4,000 to 5,000 years, what is the appearance of mankind as disclosed to us by the Egyptian monuments and inscriptions? Several of the best marked races of man were already in existence, including the brown Egyptian himself, the dark-white Semitic man of Assyria or Palestine, the Central African of two varieties, which travellers still find as distinct as ever, namely, the black or Negro proper, and the copper-coloured negroid, like the Bongo or Nyam-nyam of our own time. Indeed, the evidence accessible as to ancient races of man goes to prove that the causes which brought about their differences in types of skull, hair, skin, and constitution, did their chief work in times before history began. Since then the races which had become adapted to their geo-

graphical regions may have, on the whole, undergone little change while remaining there, but some alterations are traced as due to migration into new climates. Even these are difficult to follow, masked as they are by the more striking changes produced by intermarriage of races. Now the view that the races of man are to be accounted for as varied descendants of one original stock is zoologically probable from the close resemblance of all men in body and mind, and the freedom with which races intercross. If it was so, then the fact of the different races already existing early in the historical period compels the naturalist to look to a *præ-historic* period for their development to have taken place in. And considering how strongly differenced are the Negro and the Syrian, and how slowly such changes of complexion and feature take place within historical experience, this *præ-historic* period was probably of vast length. The evidence from the languages of the world points in the same direction. In times of ancient history we already meet with families of languages, such as the Aryan and the Semitic, and as later history goes on many other families of language come into view, such as the Bantu or Kafir of Africa, the Dravidian of South India, the Malayo-Polynesian, the Algonquin of North America, and other families. But what we do not find is the parent language of any of these families, the original language which all the other members are dialects of, so that this parent tongue should stand towards the rest in the relation which Latin holds to its descendants, Italian and French. It is, however, possible to work back by the method of philological comparison, so as to sketch the outlines of that early Aryan tongue which must have existed to produce Sanskrit and Persian, Greek and Latin, German, Russian, and Welsh, or the outlines of that early Semitic tongue which must have existed to produce Assyrian, Phœnician, Hebrew, and Arabic. Though such theoretical reconstructions of parent languages from their descendants may only show a vague and shadowy likeness to the reality, they give some idea of it. And what concerns us here is that theoretical early Aryan and Semitic, or other such reconstructed languages, do not bring our minds appreciably nearer to really primitive forms of speech. However far we get back, the signs of development from still earlier stages are there. The roots have mostly settled into forms which no longer show the reasons why they were originally chosen, while the inflexions only in part preserve traces of their original senses, and the whole structure is such as only a long-lost past can account for. To illustrate this important point, let us remember the system of grammatical gender in Greek or German, how irrationally a classification by sex is applied to sexless objects and thoughts, while even the use of a neuter gender fails to set the confusion straight, and sometimes even twists it with a new perversity of its own. Many a German and Frenchman wishes he could follow the example of our English forefathers who, long ago, threw overboard the whole worthless cargo of grammatical gender. But looking at gender in the ancient grammars, it must be remembered that human

custom is hardly ever wilfully absurd, its unreasonableness usually arising from loss or confusion of old sense. Thus it can hardly be doubted that the misused grammatical gender in Hebrew or Greek is the remains of an older and reasonable phenomenon of language; but if so, this must have belonged to a period earlier than we can assign to the theoretical parent language of either. Lastly, the development of civilisation requires a long period of præ-historic time. Experience and history show that civilisation grew up gradually, while every age preserves recognisable traces of the ages which went before. The woodman's axe of to-day still retains much of the form of its ancestor—the stone celt in its wooden handle; the mathematician's tables keep up in their decimal notation a record of the early ages when man's ten fingers first taught him to count; the very letters with which I wrote these lines may be followed back to the figures of birds and beasts and other objects drawn by the ancient Egyptians, at first as mere picture writing to denote the things represented. Yet, when we learn from the monuments what ancient Egyptian life was like towards 5,000 years ago, it appears that civilization had already come on so far that there was an elaborate system of government, an educated literary priesthood, a nation skilled in agriculture, architecture, and metal work. These ancient Egyptians, far from being near the beginning of civilization, had, as the late Baron Bunsen held, already reached its halfway house. This eminent Egyptologist's moderate estimate of man's age on the earth at about 20,000 years has the merit of having been made on historical grounds alone, independently of geological evidence, for the proofs of the existence of man in the quaternary or mammoth period had not yet gained acceptance.

My purpose in briefly stating here the evidence of man's antiquity derived from race, language, and culture is to insist that these arguments stand on their own ground. It is true that the geological argument from the implements in the drift-gravels and bone-caves, by leading to a general belief that man is extremely ancient on the earth, has now made it easier to anthropologists to maintain a rationally satisfactory theory of the race-types and mental development of mankind. But we should by no means give up this vantage ground, though the ladder we climbed by should break down. Even if it could be proved that the flint implements of Abbeville or Torquay were really not so ancient as the pyramids of Egypt, this would not prevent us from still assuming, for other and sufficient reasons, a period of human life on earth extending many thousand years farther back.

It is an advantage of this state of the evidence that it to some extent gets rid of the "sensational" element in the problem of fossil man, which it leaves as merely an interesting inquiry into the earliest known relics of savage tribes. Geological criticism has not yet absolutely settled either way the claims of the Abbé Bourgeois' flints from Thénay to be of Miocene date, or of Mr. Skertchly's from Brandon to be Glacial. The accepted point is that the men who made the ordinary flint implements of the drift lived in the

quaternary period characterised by the presence of the mammoth in our part of Europe. More than one geologist, however, has lately maintained that this quaternary period was not of extreme antiquity. The problem is, at what distance from the present time the drift gravels on the valley slopes can have been deposited by water action up to one hundred feet or so above the present flood-levels? It does not seem the prevailing view among geologists that rivers on the same small scale as those at present occupying mere ditches in the wide valley-floors could have left these deposits on the hill sides at a time when they had not yet scooped out the valleys to within fifty or a hundred feet of their present depth. Indeed, such means are insufficient out of all proportion to the results, as a mere look down from the hill-tops into such valleys is enough to show. Geologists connect the deposit of the high drift-gravels with the subsidence and elevation of the land, and the powerful action of ice and water at the close of the Glacial age; and the term "Pluvial period" is often used to characterise this time of heavy rainfall and huge rivers. It was then that the rude stone implements of palæolithic man were imbedded in the drift-gravels with the remains of the mammoth and fossil rhinoceros, and we have to ask what events have taken place in these regions since? The earth's surface has been altered to bring the land and water to their present levels, the huge animals become extinct, the country was inhabited by the tribes whose relics belong to the neolithic or polished-stone age, and afterwards the metal-using Celtic nations possessed the land, their arrival being fixed as previous to 400 B.C., the king of the Gauls then being called by the Romans by the name *Brennus*, which is simply the Celtic word for "king"—in modern Welsh *brenin*. To take in this succession of events geologists and archaeologists generally hold that a long period is required. Yet there are some few who find room for them all in a comparatively short period. I will mention Principal Dawson, of Montreal, well known as a geologist in this Association, and who has shown his conviction of the soundness of his views by addressing them to the general public in a little volume entitled "The Story of the Earth and Man." Having examined the gravels of St.-Acheul, on the Somme, where M. Boucher de Perthes found his celebrated drift implements, it appeared to Dr. Dawson that, taking into account the probabilities of a different level of the land, a wooded condition of the country and greater rainfall, and a glacial filling up of the Somme valley with clay and stones subsequently cut out by running water, the gravels could scarcely be older than the Abbeville peat, and the age of this peat he estimates as perhaps less than four thousand years. Within this period Dr. Dawson includes a comparatively rapid subsidence of the land, with a partial re-elevation, which left large areas of the lower grounds beneath the sea. This he describes as the geological deluge which separates the post-glacial period from the modern, and the earlier from the later prehistoric period of the archaeologists.

My reason for going here into these computations of Dr. Daw-



son's is that the date about 2200 B.C., to which he thus assigns these great geological convulsions, is actually within historic times. In Egypt successive dynasties had been reigning for ages, and the pyramids had long been built; while in Babylonia the old Chaldean kings had been raising the temples whose ruins still remain. That is to say, we are asked to receive, as matter of geology, that stupendous geological changes were going on not far from the Mediterranean, including a final plunge of I know not how much of the earth's surface beneath the waters, and yet national life on the banks of the Nile and the Euphrates went on unbroken and apparently undisturbed through it all. To us in this Section it is instructive to see how the free use of paroxysms and cataclysms makes it possible to shorten up geological time. Accustomed as we are to geology demanding periods of time which often seem to history exorbitant, the tables are now turned, and we are presented with the unusual spectacle of chronology protesting against geology for encroaching on the historical period.

In connection with the question of quaternary man, it is worth while to notice that the use of the terms "primæval" or "primitive" man, with reference to the savages or the mammoth period, seems sometimes to lead to unsound inferences. There appears no particular reason to think that the relics from the drift-beds or bone-caves represent man as he first appeared on the earth. The contents of the caves especially bear witness to a state of savage art, in some respects fairly high, and which may possibly have somewhat fallen off from an ancestral state in a more favourable climate. Indeed, the savage condition generally, though rude and more or less representing early stages of culture, never looks absolutely primitive, just as no savage language ever has the appearance of being a primitive language. What the appearance and state of our really primæval ancestors may have been seems too speculative a question, until there shall be more signs of agreement between the anthropologists, who work back by comparison of actual races of man toward a hypothetical common stock, and the zoologists, who approach the problem through the species adjoining the human. There is, however, a point relating to the problem to which attention is due. Naturalists not unreasonably claim to find the geographical centre of man in the tropical regions of the old world inhabited by his nearest zoological allies, the anthropomorphous apes, and there is at any rate force enough in such a view to make careful quest of human remains worth while in those districts, from Africa across to the Eastern Archipelago. Under the care of Mr. John Evans a fund has been raised for excavations in the caves of Borneo by Mr. Everett, and though the search has as yet had no striking result, money is well spent in carrying on such investigations in likely equatorial forest regions. It would be a pity that for want of enterprise a chance, however slight, should be missed of settling a question so vital to anthropology.

While the problem of primitive man thus remains obscure, a somewhat more distinct opinion may be formed on the problem of



primitive civilized man. When it is asked what races of mankind first attained to civilization, it may be answered that the earliest nations known to have had the art of writing, the great mark of civilization as distinguished from barbarism, were the Egyptians and Babylonians, who in the remotest ages of history appear as nations advanced to the civilized stage in arts and social organization. The question is, Under what races to class them? What the ancient Egyptians were like is well known from the monuments, which show how closely much of the present fellah population, as little changed in features as in climate and life, represent their ancestors of the times of the Pharaohs. Their reddish-brown skin, and features tending toward the negroid, have led Hartmann, the latest anthropologist who has carefully studied them, to adopt the classification of them as belonging to the African rather than the Asiatic peoples, and specially to insist on their connection with the Berber type, a view which seems to have been held by Blumenbach. The contrast of the brown Egyptians with the dark-white Syro-Arabians on their frontiers is strongly marked, and the portraits on the monuments show how distinctly the Egyptian knew himself to be of different race from the Semite. Yet there was mixture between the two races, and what is most remarkable, there is a deep-seated Semitic element in the Egyptian language, only to be accounted for by some extremely ancient and intimate connection. On the whole, the Egyptians may be a mixed race, mainly of African origin, perhaps from the southern Somali-land, whence the Egyptian tradition was that the gods came, while their African type may have since been modified by Asiatic admixture. Next, as to the early relations of Babylonia and Media, a different problem presents itself. The languages of these nations, the so-called Akkadian and the early Medic, were certainly not of the same family with either the Assyrian or the Persian which afterwards prevailed in their districts. Their connection with the Tatar or Turanian family of languages, asserted twenty years ago by Oppert, has since been further maintained by Lenormant and Sayce, and seems, if not conclusively settled, at any rate to have much evidence for it, not depending merely on similarity of works, such as the term for 'god' Akkadian *dingira*, being like the Tatar *tengri*, but also on similarity of pronouns and grammatical structure by post-positions. Now language, though not a conclusive argument as to race, always proves more or less as to connection. The comparison of the Akkadian language to that of the Tatar family is at any rate *primâ facie* evidence that the nations who founded the ancient civilization of Babylonia, who invented the cuneiform writing, and who carried on the astronomical observations which made the name of Chaldean famous for all time, may have been not dark-white peoples like the Assyrians who came after them, but perhaps belonged to the yellow race of Central Asia, of whom the Chinese are the branch now most distinguished in civilization. M. Lenormant has tried to identify among the Assyrian bas-reliefs certain figures of men whose round skulls, high cheek-bones, and

low-bridged noses present a Mongoloid type contrasting with that of the Assyrians. We cannot, I think, take this as proved, but at any rate in these figures the features are not those of the aquiline Semitic type. The bronze statuette of the Chaldæan king called Gudea, which I have examined with Mr. Pinches at the British Museum, is also, with its straight nose and long thin beard, as un-Assyrian as may be. The anthropological point towards which all this tends is one of great interest. We of the white race are so used to the position of leaders in civilization, that it does not come easy to us to think we may not have been its original founders. Yet the white race, whether the dark-whites, such as Phœnicians or Hebrews, Greeks or Romans, or the fair-whites, such as Scandinavians and Teutons, appear in history as followers and disciples of the Egyptians and Babylonians, who taught the world writing, mathematics, philosophy. These Egyptians and Babylonians, so far as present evidence reaches, seem rather to have belonged to the races of brown and yellow skin than to the white race.

It may be objected that this reasoning is in several places imperfect, but it is the use of a departmental address not only to lay down proved doctrines, but to state problems tentatively as they lie open to further inquiry. This will justify my calling attention to a line of argument which, uncertain as it at present is, may perhaps lead to an interesting result. So ancient was civilization among both Egyptians and Chaldæans, that the contest as to their priority in such matters as magical science was going on hotly in the classic ages of Greece and Rome. Looking at the literature and science, the arts and politics, of Memphis and of Ur of the Chaldees, both raised to such height of culture near 5,000 years ago, we ask, were these civilizations not connected, did not one borrow from the other? There is at present a clue which, though it may lead to nothing, is still worth trial. The hint of it lies in a remark by Dr. Birch as to one of the earliest of Egyptian monuments, the pyramid of Kochome, near Sakkara, actually dating from the first dynasty, no doubt beyond 3000 B.C., and which is built in steps like the seven-storied Babylonian temples. Two other Egyptian pyramids, those of Abu-sir, are also built in steps. Now whether there is any connection between the building of these pyramids and the Babylonian towers, does not depend on their being built in stages, but in the number of these stages being seven. As to the Babylonian towers, there is no doubt, for though Birs-Nimrod is now a ruinous heap, the classical descriptions of such temples, and the cuneiform inscriptions, put it beyond question that they had seven stages, dedicated to the seven planets. As to the Egyptian pyramids, the archæologists Segato and Masi positively state of one step-pyramid of Abur-sir, that it had seven decreasing stages, while, on the other hand, Vyse's reconstruction of the step-pyramid of Sakkara shows there only six. Considering the ruinous state of all three step-pyramids, it will require careful measurement to settle whether they originally had seven stages or not. If they had, the correspondence cannot be set down to accident, but must be taken

to prove a connection between Chaldaea and Egypt as to the worship of the seven planets, which will be among the most ancient links connecting the civilizations of the world. I hope by thus calling attention to the question, to induce some competent architect visiting Egypt to place the matter beyond doubt, one way or the other.

While speaking of the high antiquity of civilization in Egypt, the fact calls for remark, that the use of iron as well as bronze in that country seems to go back as far as historical record reaches. Brugsch writes in his "Egypt under the Pharaohs," that Egypt throws scorn on the archæologists' assumed successive periods of stone, bronze, and iron. The eminent historian neglects, however, to mention facts which give a different complexion to the early Egyptian use of metals, namely, that chipped flints, apparently belonging to a prehistoric Stone Age, are picked up plentifully in Egypt, while the sharp stones, or stone knives used by the embalmers seem also to indicate an earlier time when these were the cutting instruments in ordinary use. Thus there are signs that the Metal Age in Egypt, as elsewhere in the world, was preceded by a Stone Age, and if so, the high antiquity of the use of metal only throws back to a still higher antiquity the use of stone. The ancient iron-working in Egypt is, however, the chief of a group of facts which are now affecting the opinions of anthropologists on the question whether the Bronze Age everywhere preceded the Iron Age. In regions where, as in Africa, iron ore occurs in such a state that it can after mere heating in the fire be forged into implements, the invention of iron-working would be more readily made than that of the composite metal bronze, which perhaps indicates a previous use of copper, afterwards improved on by an alloy of tin. Professor Rolleston, in a recent address on the Iron, Bronze, and Stone Ages, insists with reason that soft iron may have been first in the hands of many tribes, and may have been superseded by bronze as a preferable material for tools and weapons. We moderns, used to fine and cheap steel, hardly do justice to the excellence of bronze, or gun-metal as we should now call it, in comparison with any material but steel. I well remember my own surprise at seeing in the Naples Museum that the surgeons of Herculaneum and Pompeii used instruments of bronze. It is when hard steel comes in, that weapons both of bronze and wrought iron have to yield, as when the long soft iron broad-swords of the Gauls bent at the first blow against the pikes of Flaminus' soldiers. On the whole, Professor Virchow's remarks in the Transactions of the Berlin Anthropological Society for 1876, on the question whether it may be desirable to recognise instead of three only two ages, a Stone Age and a Metal Age, seem to put the matter on a fair footing. Iron may have been known as early as bronze or even earlier, but nevertheless there have been periods in the life of nations when bronze, not iron, has been the metal in use. Thus there is nothing to interfere with the facts resting on archæological evidence, that in such districts as Scandinavia or Switzerland a Stone Age was at some

ancient time followed by a Bronze Age, and this again by an Iron Age. We may notice that the latter change is what has happened in America within a few centuries, where the Mexicans and Peruvians, found by the Spaniards living in the Bronze Age, were moved on into the Iron Age. But the question is whether we are to accept as a general principle in history the doctrine expounded in the poem of Lucretius, that men first used boughs and stones, that then the use of bronze became known, and lastly iron was discovered. As the evidence stands now, the priority of the Stone Age to the Metal Age is more firmly established than ever, but the origin of both bronze and iron is lost in antiquity, and we have no certain proof which came first.

Passing to another topic of our science, it is satisfactory to see with what activity the comparative study of laws and customs, to which Sir Henry Maine gave a new starting-point in England, is now pursued. The remarkable inquiry into the very foundations of society in the structure of the family, set afoot by Bachofen in his "*Mütterrecht*," and McLennan in his "*Primitive Marriage*," is now bringing in every year new material. Mr. L. H. Morgan, who, as an adopted Iroquois, became long ago familiar with the marriage-laws and ideas of kinship of uncultured races, so unlike those of the civilized world, has lately made, in his "*Ancient Society*," a bold attempt to solve the whole difficult problem of the development of social life. I will not attempt here any criticism of the views of these and other writers on a problem where the last word has certainly not been said. My object in touching the subject is to mention the curious evidence that can still be given by rude races as to their former social ties, in traditions which will be forgotten in another generation of civilised life, but may still be traced by missionaries and others who know what to seek for. Thus, such inquiry in Polynesia discloses remarkable traces of a prevalent marriage-tie which was at once polygamous and polyandrous, as where a family of brothers were married jointly to a family of sisters; and I have just noticed in a recent volume on "*Native Tribes of South Australia*," a mention of a similar state of things occurring there. As to the general study of customs, the work done for years past by such anthropologists as Professor Bastian, of Berlin, is producing substantial progress. Among recent works I will mention Dr. Karl Andree's "*Ethnologische Parallelen*," and Mr. J. A. Farrar's "*Primitive Manners*." In the comparison of customs and inventions, however, the main difficulty still remains to be overcome, how to decide certainly whether they have sprung up independently alike in different lands through likeness in the human mind, or whether they have travelled from a common source. To show how difficult this often is, I may mention the latest case I have happened to meet with. The Orang Dongo, a mountain people in the Malay region, have a custom of inheritance that when a man dies the relatives each take a share of the property, and the deceased inherits one share for himself, which is burnt or buried for his ghost's use, or eaten at the funeral feast. This may strike

many of my hearers as quaint enough and unlikely to recur elsewhere; but Mr. Charles Elton, who has special knowledge of our ancient legal customs, has pointed out to me that it was actually old Kentish law, thus laid down in Law-French:—"Ensement seient les chateus de gaulekendeys parties en treis apres le exequies e les dettes rendues si il y est issue mulier en vye, issi que la mort eyt la une partie, e les fitz e les filles muliers lautre partie e la femme la tierce partie."—"In like sort let the chattels of gavelkind persons be divided into three after the funeral and payment of debts if there be lawful issue living, so that the deceased have one part, and the lawful sons and daughters the other part, and the wife the third part." The Church had indeed taken possession, for pious uses, of the dead man's share of his own property; but there is a good Scandinavian evidence that the original custom before Christian times was for it to be put in his burial-mound. Thus the rite of the rude Malay tribe corresponds with that of ancient Europe, and the question which the evidence does not yet enable us to answer is, whether the custom was twice invented, or whether it spread east and west from a common source, perhaps in the Aryan district of Asia.

It remains for me to notice the present state of Comparative Mythology, a most interesting, but also most provoking part of Anthropology. More than twenty years ago a famous essay, by Professor Max Müller, made widely known in England how far the myths in the classical dictionary and the story-books of our own lands might find their explanation in poetic nature-metaphors of sun and sky, cloud and storm, such as are preserved in the ancient Aryan hymns of the Veda. Of course it had been always known that the old gods and heroes were in some part personifications of nature—that Helios and Okeanos, though they walked and talked and begat sons and daughters, were only the Sun and Sea in poetic guise. But the identifications of the new school went farther. The myth of Endymion became the simple nature-story of the setting Sun meeting Selene the Moon; and I well remember how, at the Royal Institution, the aged scholar, Bishop Thirlwall, grasped the stick he leant on, as if to make sure of the ground under his feet, when he heard it propounded that Erinyes, the dread avenger of murder, was a personification of the Dawn discovering the deeds of darkness. Though the study of mythology has grown apace in these later years, and many of its explanations will stand the test of future criticism, I am bound to say that mythologists, always an erratic race, have of late been making wilder work than ever with both myth and real history, finding mythic suns and skies in the kings and heroes of old tradition, with dawns for love-tales, storms for wars, and sunsets for deaths, often with as much real cogency as if some mythologist a thousand years hence should explain the tragic story of Mary Queen of Scots as a nature-myth of a beautiful Dawn rising in splendour, prisoned in a dark cloud-island, and done to death in blood-red sunset. Learned treatises have of late, by such rash guessings, shaken public confidence in the more



sober reasonings on which comparative mythology is founded, so that it is well to insist that there are cases where the derivation of myths from poetic metaphors is really proved beyond doubt. Such an instance is the Hindu legend of King Bali, whose austerities have alarmed the gods themselves, when Vâmana, a Brahmanic Tom Thumb, begs of him as much land as he can measure in three steps; but when the boon is granted, the tiny dwarf expands gigantic into Vishnu himself, and striding with one step across the earth, with another across the air, and a third across the sky, drives the king down into the infernal regions, where he still reigns. There are various versions of the story, of which one may be read in Southey; but in the ancient Vedic hymns its origin may be found when it was not as yet a story at all, only a poetic metaphor of Vishnu, the Sun, whose often-mentioned act is his crossing the airy regions in his three strides. "Vishnu traversed (the earth); thrice he put down his foot; it was crushed under his dusty step. Three steps hence made Vishnu, unharmed preserver, upholding sacred things."

Both in the savage and civilized world there are many myths which may be plainly traced to such poetic fancies before they have yet stiffened into circumstantial tales; and it is in following out these, rather than in recklessly guessing myth-origins for every tradition, that the sound work of the mythologist lies. The scholar must not treat such nature-poetry like prose, spoiling its light texture with too heavy a grasp. In the volume published by our new Folk-Lore Society, which has begun its work so well, Mr. Lang gives an instance of the sportive nature metaphor which still lingers among popular story-tellers. It is Breton, and belongs to that widespread tale of which one version is naturalised in England as "Dick Whittington and his Cat." The story runs thus:—The elder brother has the cat, while the next brother, who has a cock left him, fortunately finds his way to a land where (there being no cocks) the king has every night to send chariots and horses to bring the dawn; so that here the fortunate owner of Chanticleer has brought him to a good market. Thus we see that the Breton peasant of our day has not even yet lost the mythic sense with which his remote Aryan ancestors could behold the chariots and horses of the dawn. But myth, though largely based on such half-playful metaphor, runs through all the intermediate stages which separate poetic fancy from crude philosophy embodied in stories seriously devised as explanations of real facts. No doubt many legends of the ancient world, though not really history, are myths which have arisen by reasoning on actual events, as definite as that which, some four years ago, was terrifying the peasant mind in North Germany, and especially in Posen. The report had spread far and wide that all Catholic children with black hair and blue eyes were to be sent out of the country, some said to Russia, while others declared that it was the King of Prussia who had been playing cards with the Sultan of Turkey, and had staked and lost 40,000 fair-haired, blue-eyed children; and there were Moors



travelling about in covered carts to collect them; and the schoolmasters were helping, for they were to have five dollars for every child they handed over. For a time the popular excitement was quite serious; the parents kept the children away from school and hid them, and when they appeared in the streets of the market-town the little ones clung to them with terrified looks. Dr. Schwartz, the well-known mythologist, took the pains to trace the rumour to its sources. One thing was quite plain, that its prime cause was that grave and learned body, the Anthropological Society of Berlin, who, without a thought of the commotion they were stirring up, had, in order to class the population as to race, induced the authorities to have a census made throughout the local schools, to ascertain the colour of the children's skin, hair, and eyes. Had it been only the boys, to the Government inspection of whom for military conscription the German peasants are only too well accustomed, nothing would have been thought of it; but why should the officials want to know about the little girls' hair and eyes? The whole group of stories which suddenly sprang up were myths created to answer this question; and even the details which became embodied with them could all be traced to their sources, such as the memories of German princes selling regiments of their people to pay their debts, the late political negotiations between Germany and Russia, &c. The fact that a caravan of Moors had been travelling about as a show accounted for the covered carts with which they were to fetch the children; while the schoolmasters were naturally implicated, as having drawn up the census. One schoolmaster, who evidently knew his people, assured the terrified parents that it was only the children with blue hair and green eyes that were wanted—an explanation which sent them home quite comforted. After all, there is no reason why we should not come in time to a thorough understanding of mythology. The human mind is much what it used to be, and the principles of myth-making may still be learnt from the peasants of Europe.

When, within the memory of some here present, the Science of Man was just coming into notice, it seemed as though the study of races, customs, traditions, were a limited though interesting task, which might after a few years come so near the end of its materials as no longer to have much new to offer. Its real course has been far otherwise. Twenty years ago it was no difficult task to follow it step by step; but now even the yearly list of new anthropological literature is enough to form a pamphlet, and each capital of Europe has its Anthropological Society in full work. So far from any look of finality in anthropological investigations, each new line of argument but opens the way to others behind, while these lines tend as plainly as in the sciences of stricter weight and measure, toward the meeting ground of all sciences in the unity of nature.

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The following communication has been received from Prof. Ph. de Rougemont:—

NEUCHÂTEL,

19 Octobre, 1879.

La Direction du Musée de Neuchâtel offre à vendre les doublets de la collection d'objets lacustres de l'âge de la pierre provenant de la station d'Auvernier. Par les travaux faits pour l'abaissement des eaux du lac de Neuchâtel, toutes les stations lacustres ont été mises à sec, ce qui nous a permis de les exploiter sur une grande échelle et de livrer à des prix avantageux des séries d'objets soit pour Musées, soit pour l'enseignement dans les écoles supérieures. La vente de ces objets a pour but de couvrir les frais d'exploitation.

Liste d'objets lacustres de l'âge de la pierre, provenant de la station d'Auvernier.

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|--|---------|------------------------|
| No. 1. Hache en pierre polie avec son emmanchure en bois de cerf et son manche en bois. Le manche est fait d'après un original trouvé à Auvernier et conservé dans l'alcool. | .. .. . | La pièce, prix frs. 10 |
| No. 2. Hache en pierre polie avec son emmanchure en bois de cerf   | .. .. . | La pièce, prix frs. 7  |
| No. 3. Haches en pierre polie, suivant la grandeur et la beauté  | .. .. . | à frs. 5, 4, 3, 2      |
| No. 4. Haches en Néphrite  | .. .. . | à frs. 10              |
| No. 5. Emmanchures de haches en bois de cerf.  |         | La pièce de frs. 3-5   |
| No. 6. Marteaux en pierre polie, achevés mais cassés en deux   |         | La pièce frs. 5        |
| No. 6. Ebauche de marteau non poli, perforé et cassé   |         | La pièce frs. 5        |
| No. 7. Boulons provenant du perforage de ces marteaux (très rares)   | .. .. . | La pièce frs. 3        |
| No. 8. Scies en silex  | .. .. . | „ 4 à 5                |
| No. 9. Pointes de flèche en silex  | .. .. . | „ 8 à 10               |
| No. 10. Poinçons en os de cerf   | .. .. . | „ 3 à 4                |
| No. 11. Fragments d'os aiguisés en ciseau  | .. .. . | „ 3 à 4                |
| No. 12. Pierre à aiguiser  | .. .. . | frs. 5                 |
| No. 13. Pesons en terre cuite perforés   | .. .. . | „ 5                    |
| No. 14. Pesons en terre cuite portant des dessins et perforés (Bronze)   | .. .. . | frs. 4 à 5             |
| No. 15. Pesons en pierre percée  | .. .. . | fr. 1                  |
| No. 15. Torche en terre cuite pour porter les vases.   |         | frs. 5                 |
| No. 16. Poteries de l'âge de la pierre et du bronze  | .. .. . |                        |
| No. 17. Cornes et machoires de cerf  | .. .. . | frs. 5 à 6             |
| No. 18. „ „ „ chevreuil  | .. .. . | „ 3 à 4                |
| No. 19. „ „ „ chèvre   | .. .. . | „ 5 à 6                |
| No. 20. Machoires de bœuf  | .. .. . | „ 5 à 6                |
| No. 21. Machoires infér de sanglier  | .. .. . | „ 5                    |
| No. 22. Dent d'ours  | .. .. . | „ 5                    |
| No. 23. Machoires de castor  | .. .. . | „ 5 à 6                |

Les No. 3 et 5 comprennent les objets que nous possédons en grande quantité. Il nous serait possible d'en livrer une centaine.

Le No. 7 comprend des objets en pierre, cylindriques, quelque fois légèrement coniques, ayant la forme de petits bouchons et provenant du trou des marteaux.

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